Woodward's National Architect

BY

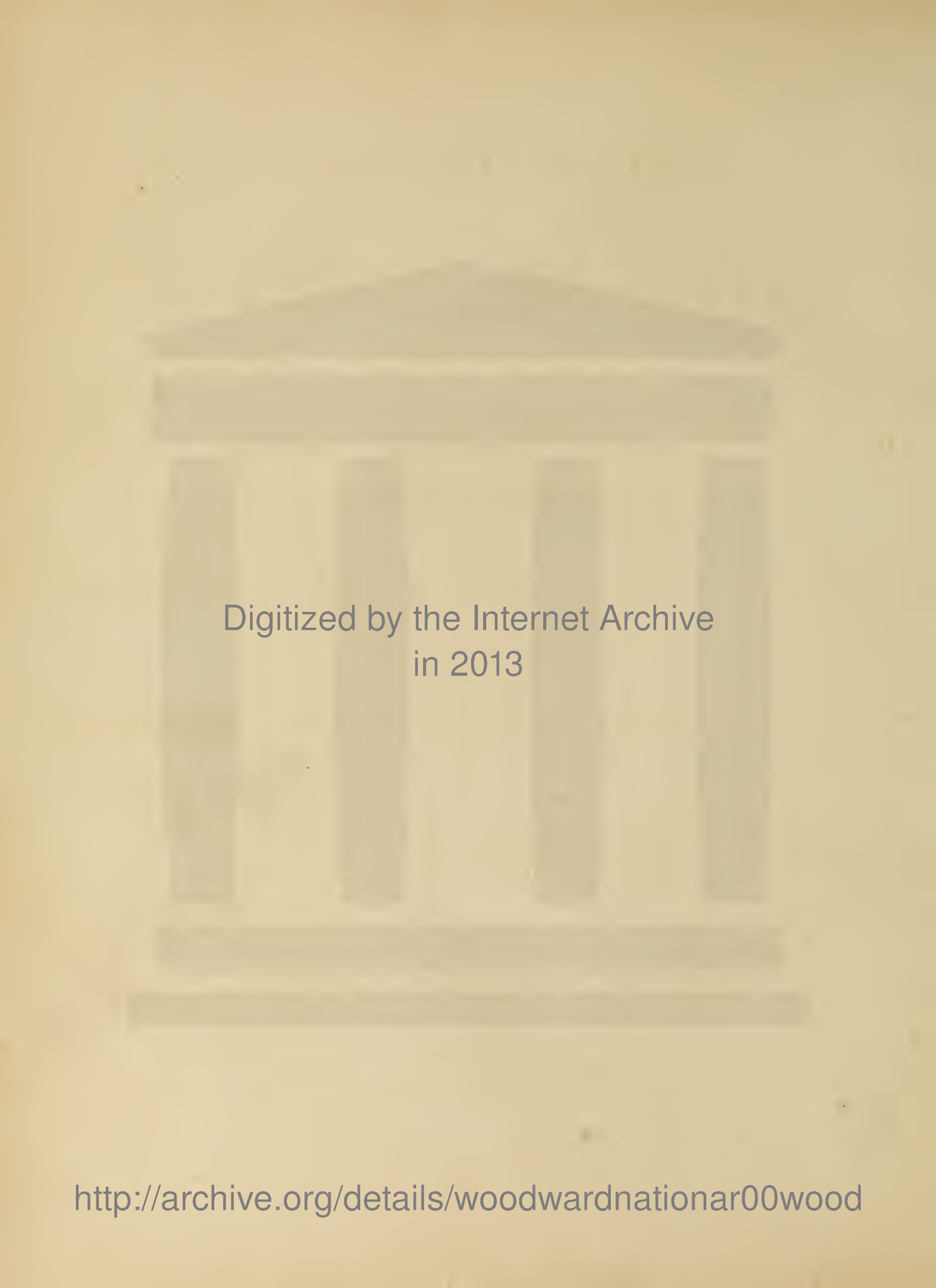
GEO. E. WOODWARD, ARCHITECT,

&

((Edward G. Thompson, Architect.))

Designs, Plans & Details

Engraved & printed by KORFF BROS. New York.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WOODWARD'S

NATIONAL ARCHITECT;

CONTAINING

1000 ORIGINAL DESIGNS, PLANS AND DETAILS,

To Working Scale,

FOR THE

PRACTICAL CONSTRUCTION OF DWELLING HOUSES

FOR THE

COUNTRY, SUBURB AND VILLAGE.

WITH

FULL AND COMPLETE SETS OF SPECIFICATIONS AND AN ESTIMATE OF THE COST OF EACH DESIGN.

BY

GEO. E. WOODWARD, ARCHITECT,

Author of "Woodward's Country Homes," "Woodward's Cottages and Farm-Houses," Woodward's Suburban and Country Houses," Etc.,

AND

EDWARD G. THOMPSON, ARCHITECT.

NEW YORK:
GEO. E. WOODWARD, 191 BROADWAY.

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THE GETTY CENTER

DESIGN No. 19.	*Plate* No. 73.		Side elevation.
	" " 74.		First floor plan.
	" " 75.		Second floor plan.
	" " 76 and 77.		Details in full, principally of elaborate brick work in cornices, window-dressings, etc.
DESIGN No. 20.	*Plate* No. 78.		Front elevation of Stone Lodge, Towers and Entrance, designed for erection at Rutherfurd Heights, N. J.
	" " 79.		Side elevation.
	" " 80.		Plans.
	" " 81.		Details of stone work.
MISCELLANEOUS DETAILS.	*Plate* No. 82.		Details of French roofs to working scale.
	" " 83.	"	Framing of French roofs.
	" " 84.	"	Dormer windows.
	" " 85.	"	Bay windows.
	" " 86.	"	Inside shutters and French windows.
	" " 87.	"	Balconies.
	" " 88.	"	Verandas and porches.
	" " 89.	"	Stairs, newels, balusters, etc.
	" " 90.	"	Sliding and hanging doors.
	" " 91.	"	Windows, outside casings, etc.
	" " 92.	"	Gable finish, and wood and iron cresting.
	93.	"	Canopies, hoods, observatories, etc.
	" " 94.	"	Base, architraves, etc.
	" " 95.	"	Cornices and brackets.
	" " 96.	"	Plain wooden mantels.
	" " 97.	"	Plaster finish, cornices,
	" 98.	"	ceilings, etc.
	" " 99.	"	Ornamental hard-wood mantels,
	" " 100.	"	etc. etc. etc.

PRICES OF BUILDING MATERIALS AND LABOR,

AT NEW YORK, JANUARY, 1869.

Estimates in this work are based on the prices here given, and cost of erection in other localities will be fixed by the local prices of materials.

Mason Work and Materials.

Stone wall, including all materials, laid dry, per foot 23 cents.
do do laid with mortar, - - do 23 do.
Excavation, per cubic yard, - - - 40 do.
Brick, per thousand, laid. Pale, $19 50 to $23 50. Hard burned, $21 to $25.
Cement, per barrel, $2 50 to $3.
Lime, do $1 75.
Hair, per bushel, 70 cents.
Lath and plastering, including all materials, 1 coat, per square yard, 40 cents.
do do do 2 coats, do 60 do.
do do do 3 coats, do 70 do.
Laths, per thousand, $3 50 to $4 50.

Prices for all the timber, covering, flooring and finishing lumber, per thousand feet, board measure.

Framing Timber.

Pine, $45. Sawed to order. Spruce, $25. Sawed to order.
Hemlock, $22 to $25.
Firring, 2 inches wide, 6 cents each.
Studding, 13 feet by 2×4 inches, 21 cents each. 3×4, 24 cents each.
Shingles, $8 to $10.

Roofing.

Hemlock, 1 inch thick, $24 per thousand.
Pine, 1¼ inches thick, matched, $45 per thousand.
Spruce, do do $35 do
Slating, per square of 100 feet, metal extra. 1st quality of slates, $15. 2d quality, $14.
Tinning, per square of 100 feet, $11 to $13.
Leaders, 4 inches calibre, per lineal foot, 30 cents.

Flooring.

Spruce, 5 inches wide, 1¼-inch thick, $35 per thousand, planed and matched.
Spruce, 10 inches wide, 1¼-inch thick, planed and matched, $35 per thousand,
White pine, 5 inches wide, as above, $45.
White pine, 10 inches wide, as above, $45.
Georgia pine, 3 to 5 inches wide, $60 to $80, 1¼-inch thick, planed and matched.
Hemlock, 1-inch thick, matched, $24.

Finishing Stock, Seasoned.

Clear white pine, $65 per thousand.
Second quality of clear pine, $40 to $50.

Hardware.

Nails, per cwt., $5 75.

Labor Per Day.

Stone Mason,	$4 00.	Mason's Tender,	$3 00.	
Bricklayer,	5 00.	Carpenter,	3 75.	
Plasterer,	5 50.	Painter,	3 50.	Laborer, $2 00.

INTRODUCTION.

In presenting to the public a new work on Architecture, we have endeavored to occupy a field not hitherto covered in a similar manner, and also to fulfill a demand that has been made on us for some years past for practical working plans adapted to the wants of the great mass of the inhabitants of our country—plans, elevations, working details, estimates, and specifications so clearly made out and so thoroughly and practically prepared, that they may at once be placed in the hands of a builder for execution.

The plan of this work embraces designs for houses of moderate valuations, estimated at New York prices as a basis, with such detail prices as will enable one to ascertain the cost in his own locality by comparison with the different rates of prices that always exist in different sections of the country.

The forms of specifications given are such, that they may be adapted to any of the designs, so that full and final estimates can be obtained from local builders. They will also serve as hints for the preparation of specifications for any class of dwelling houses.

Front and side elevations, plans and detail drawings to working scale are given for each design, and in many cases perspective views are shown. In addition, we have added a large number of miscellaneous details which will enable any one to select such styles of finish as he may prefer.

The drawings are so carefully made and figured as to explain thoroughly their meaning without further description than that found necessary in the specifications, and we have, therefore, carefully avoided all theories, essays, or speculations on the subject, believing we can convey more practical and valuable information by carefully-executed drawings than by whole volumes of descriptive matter. From a long experience as Architect, author and publisher, we believe this work will fully meet the popular demand, and be found alike indispensable to those who propose the erection of buildings, as well as to all classes of mechanics engaged in their construction.

We are indebted to Mr. Samuel F. Eveleth, Architect, N. Y., for designs on Plates Nos. 70 and 71, and Miscellaneous Details on Plates numbered 82 to 88, and 90 to 96.

WOODWARD'S NATIONAL ARCHITECT.

DESCRIPTION OF PLATES.

ALL DRAWN TO WORKING SCALE.

Estimates made in accordance with New York price list given on another page, which must be altered to suit local prices wherever used.

DESIGN No. 1.	*Plate* No.	1.	Perspective view of Dwelling House. To cost $7,000.
	" "	2.	Front and side elevation. $\frac{1}{16}$-inch scale.
	" "	3.	First and second floor plans, " "
	" "	4.	Section of house and details, to $\frac{1}{2}$-inch scale.
			Carpenters' Specification in full.
			Masons' " "
			Plumbers' " "
DESIGN No. 2.	*Plate* No.	5.	Perspective view, French-roof Cottage. To cost $5,000.
	" "	6.	Front elevation. $\frac{1}{8}$-inch scale.
			Right side elevation. $\frac{1}{16}$-inch scale.
	" "	7.	Left side elevation. $\frac{1}{16}$-inch scale.
			First and second floor plans. $\frac{1}{16}$-inch scale.
	" "	8.	Section of house. $\frac{1}{8}$-inch scale.
			Details. $\frac{1}{2}$-inch scale.
	" "	9.	Details of front bay window, dormer, etc.
DESIGN No. 3.	*Plate* No.	10.	Perspective view of Small Cottage. To cost $2,000.
	" "	11.	Front and side elevations. $\frac{1}{8}$-inch scale.

Design No. 4.	*Plate* No.	12.	Perspective view showing a future addition to Design No. 3.
	" "	13.	Front elevation. $\frac{1}{8}$-inch scale.
			Side elevation. $\frac{1}{16}$-inch scale.
	" "	14.	First and second floor plans. $\frac{1}{16}$-inch scale.
		15.	Section of house. $\frac{1}{8}$-inch scale.
			Details. $\frac{1}{2}$-inch scale.
	" "	16.	Details of gables and front bay windows, $\frac{1}{2}$-inch and $1\frac{1}{2}$-inch.
Design No. 5.	*Plate* No.	17.	Perspective view of Cottage. To cost $4,000.
	" "	18.	Front elevation. $\frac{1}{8}$-inch scale.
			Left side elevation. $\frac{1}{16}$ scale.
	" "	19.	Right side elevation. " "
			First and second floor plans. $\frac{1}{16}$-inch scale.
	" "	20.	Section of house. $\frac{1}{8}$-inch scale.
			Details front porch, gable and window. $\frac{1}{2}$-inch scale.
	" "	21.	Details of windows, cornices, finials, crestings, etc.
Design No. 6.	*Plate* No.	22.	Perspective view Ornamental Cottage. To cost $5,200.
	" "	23.	Front elevation. $\frac{1}{8}$-inch scale.
			Section of house. $\frac{1}{16}$-inch scale.
	" "	24.	Side elevation. $\frac{1}{8}$-inch scale.
	" "	25.	First floor plan. $\frac{1}{8}$-inch scale.
	" "	26.	Second floor plan. " "
	" "	27.	Details front gable, dormer and porch, main gable, rear veranda, cresting and rail.
	" "	28.	Details of bay window, chimneys, etc.
Design No. 7.	*Plate* No.	29.	Front and side elevations of Ice House and fruit room. $\frac{1}{8}$-inch scale. To cost $1,500.
	" "	30.	Section and plan. $\frac{1}{8}$-inch scale.
	" "	31.	Details for all outside finish.
Design No. 8.	*Plate* No.	32.	Water-front and side elevation of ornamental boat and bath house. $\frac{1}{8}$ and $\frac{1}{16}$-inch scale. To cost $1,800.

Design No. 8.	*Plate* No.	33.	Section and plan. $\frac{3}{16}$-inch scale.
	" "	34.	Details of elaborate exterior finish.
Design No. 9.	*Plate* No.	35.	Perspective view of School House. To cost 6,000.
	" "	36.	Front elevation. $\frac{1}{8}$-inch scale.
			Ground plan of school-room. Second floor plan for public hall, religious services, etc. $\frac{1}{8}$-inch scale.
	" "	37.	Side elevation, $\frac{1}{2}$-inch to 1 foot.
	" "	38.	Section and details. to scale
	" "	39.	Details in full. "
Design No. 10.	*Plate* No,	40.	Perspective view of a Suburban City House, with French roof and tower. To cost $11,000.
	" "	41.	Front elevation. $\frac{1}{8}$-inch scale.
	" "	42.	Side elevation. " "
	" "	43.	Ground plan and chamber plan. $\frac{1}{8}$-inch scale
	" "	44.	Section. $\frac{1}{8}$-inch scale.
	" "	45.	Details in full. $\frac{1}{2}$-inch scale.
	" "	46.	Details in full. " "
			Carpenters' Specification in full.
			Masons' " "
			Plumbers' " "
Miscellaneous Details.	" "	47.	Examples of various styles of brackets to working scale.
	" "	48.	Examples of lattice-work. $\frac{1}{2}$-inch scale.
	" "	49.	Examples of chimneys in ornamental brick-work.
Design No. 11.	*Plate* No.	50.	Front and side elevations of Suburban Cottage. $\frac{1}{8}$-inch scale. To cost $3,200.
	" "	51.	First and second floor plans. $\frac{1}{8}$-inch scale.
	" "	52.	Details in full to scale.
Design No. 12.	*Plate* No.	53.	Front and side elevations of Cottage. To cost $4,100.

Design No. 12.	*Plate* No. 54.	First and second floor plans
	" " 55.	Details in full to scale.
Design No. 13.	*Plate* No. 56.	Front and side elevations of Cottage ½-inch scale. To cost $4,700.
	" " 57.	First and second floor plans.
	" " 58.	Details in full to scale.
Design No. 14.	*Plate* No. 59.	Front and side elevations of Stable. To cost $2,500.
	" " 60.	Floor plan and details to scale.
Design No. 15.	*Plate* No. 61.	Front elevation of Cottage. To cost $6,000.
	" " 62.	Side elevation to scale.
	" " 63.	First floor plan.
	" " 64.	Second floor plan.
	" " 65.	Details to working scale.
	" " 66.	Details to working scale.
Design No. 16.	*Plate* No. 67.	Suburban City House for lot 50 feet front. To cost $6,000.
	" " 68.	First and second floor plans.
	" " 69.	Details to scale.
Design No. 17.	*Plate* No. 70.	Front and side elevations for City House for lot 50 feet front. French roof and three floor plans. To cost $5,000. Masons' specification in full. Carpenters' specification in full.
Design No. 18.	Plate No. 71.	Suburban City House, French roof, front and side elevations, and three floor plans. To cost $5,000.
Design No. 19.	*Plate* No. 72.	Front elevation of Ornamental Brick Villa, with French roof and tower. To cost $30,000. Designed for erection at Rutherfurd Heights on the Passaic River, N. J.

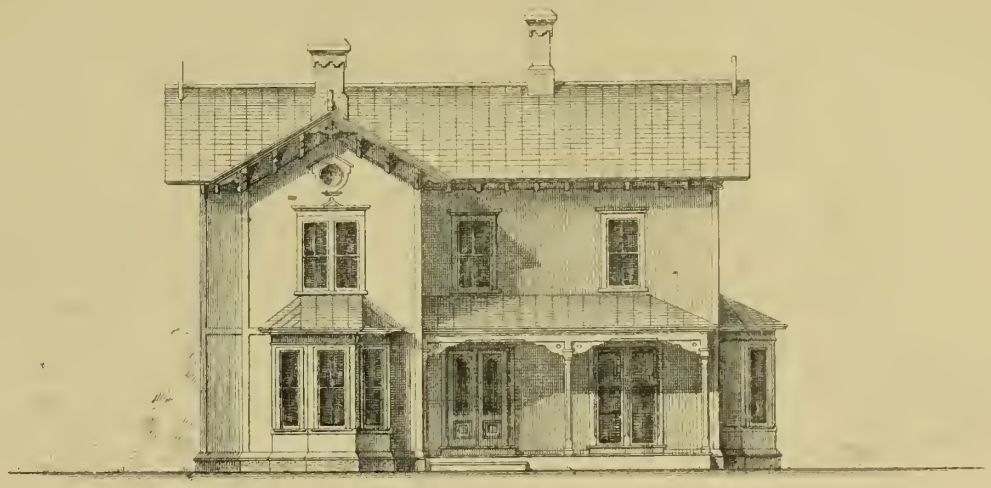
Design No. 1.

Plate No. 1.

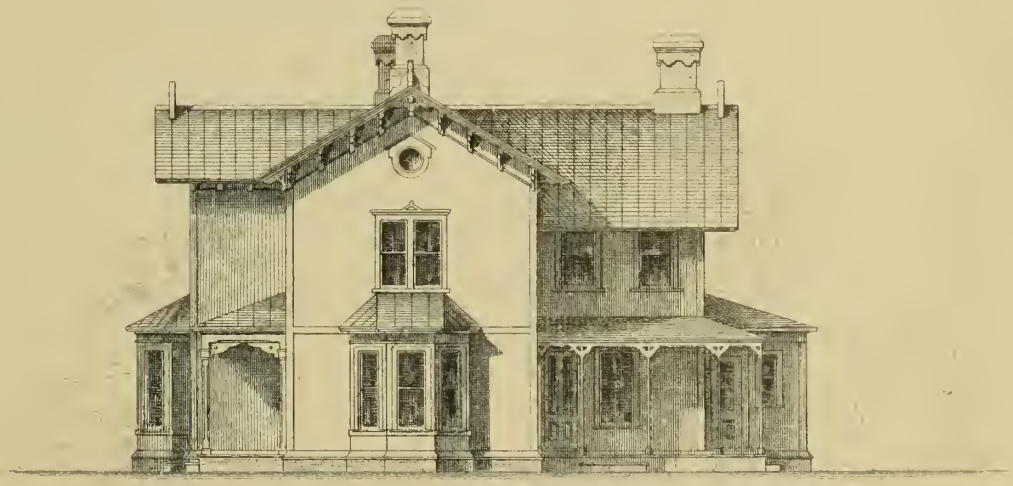
Engraved by KURTZ BROTHERS 24 William St. N.Y.

Design No. 1.

Plate No. 2.



— FRONT ELEVATION. —

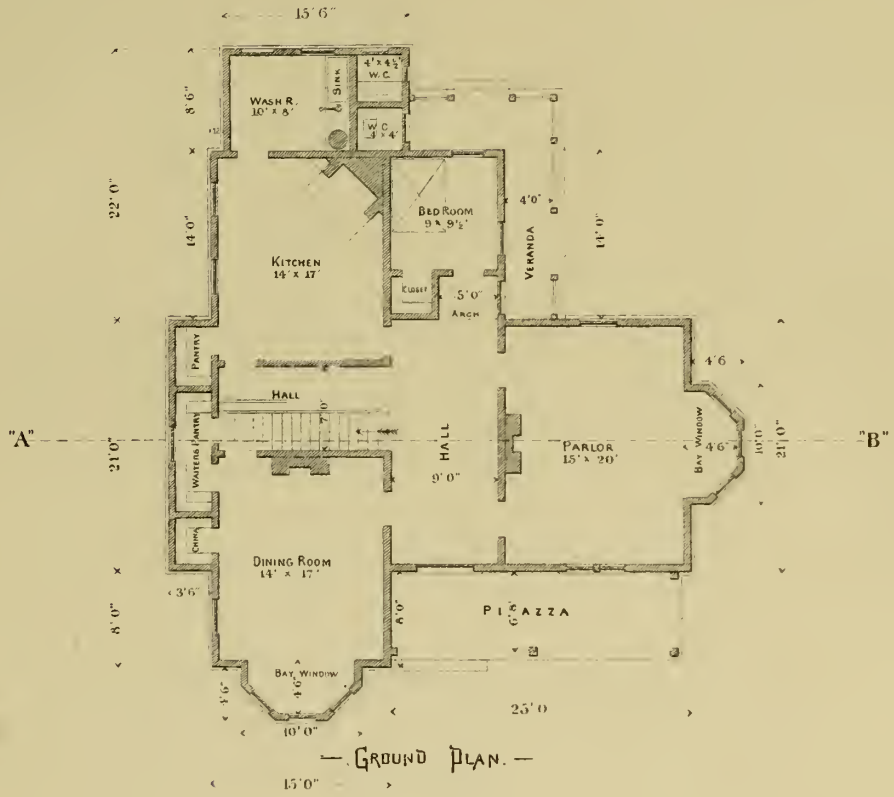


— SIDE ELEVATION. —

SCALE. 1/16 Inch to One Foot.

Design No. 1.

Plate No. 3.



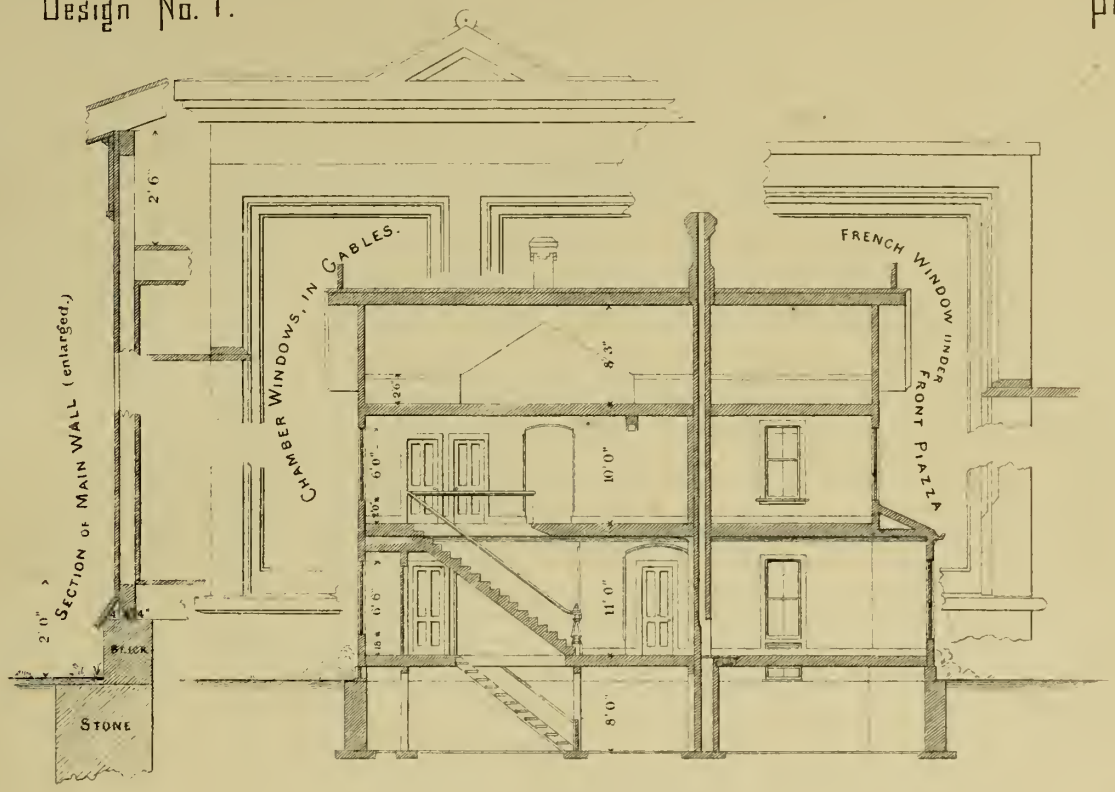
— Ground Plan. —

— Chamber Plan. —

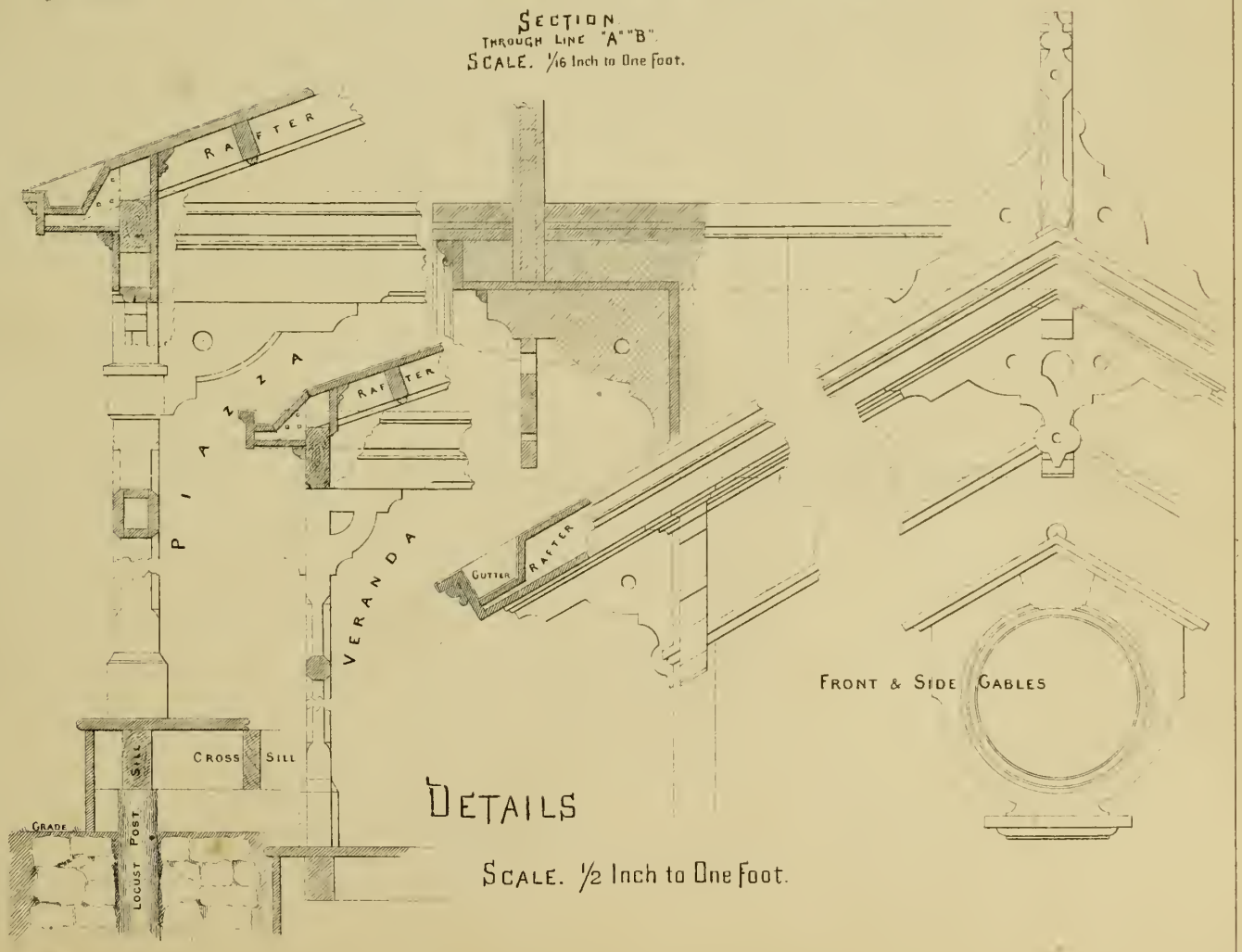
Scale. 1/16 Inch to One Foot.

Design No. 1.

Plate No. 4.



SECTION
THROUGH LINE "A" "B".
SCALE. 1/16 Inch to One Foot.



DETAILS

SCALE. 1/2 Inch to One Foot.

DESIGN No. 1.

CARPENTERS' SPECIFICATION.

DIMENSIONS, ETC. For Dimensions, heights of stories and internal arrangement of the building, see drawings.

The figures on the drawings to be followed in the construction in all cases in preference to measurement by the scale.

TIMBERING.

QUALITY OF TIMBER. Furnish all the Timber used in the construction, of good sound square-edged quality, free from any and every imperfection tending to impair its durability or strength, and as well seasoned as any convenient market will afford. The Sills, Posts, Floor Joist and Rafters, to be of Chesnut, Pine or Spruce, and the remaining framing timber of Hemlock, Pine or Spruce, at the option of the Contractor.

DIMENSIONS of the Timber, as follows:

Sills,	9×4 inches.
Angle Posts,	8×4 do
Intermediate do	6×4 do
Girts,	6×4 do
Plates, (main building,)	6×4 inches.
do (Wash Room Extension,)	4×4 inches.
Valley Rafters,	7×4 do
Common do	6×3 do (20 inches from centres.)

Carriage Beams and Headers, 4 inches thick.

Firr out from the sills, and case underneath the floors down to the grade level as shown.

Outside Steps. Build the outside steps and platforms as drawn, with 1¼-inch nosed treads, and 1-inch risers and facias. Provide with cove moulding underneath the nosings of front steps.

FLOORING.

Lay the attic floor with wide, perfectly sound 1-inch tongued lumber nailed twice to each bearing.

Lay all the remaining floors throughout, with narrow 1¼-inch tongued flooring, free from defects and blind nailed.

Flush off all the joints of the floors with the plane.

Cut in 2 × ½-inch borders around all the hearths.

Furnish all the doors with hard wood saddles.

PARTITIONS AND FIRRING.

Set all the partitions that support beams, with 3 × 4-inch hemlock, 12 inches from centers, with 3 × 4-inch plates, (sound, straight and square edged,) and 3 × 4-inch sills. Form all the angles solid, and set all door studs double.

Set studs of 3 × 4-inch hemlock, with 4 × 4-inch plate, and 3 × 4-inch sills, 4 feet apart, to support rafters in attic.

Bridging. Bridge all the Partitions once in their height.

Firring. Cross-firr the 1st, and 2d, story ceilings, with 1-inch strip firring, and also firr the closet and bath room ceilings (under tank) down level, 8 feet high in the clear.

Firr off for the segmental arches across halls. Do any other firring required by the design.

Set grounds to all openings and leave them on.

STAIRS.

To Cellar. Build stairs to cellar, with 1½-inch strings, and 1¼-inch treads. (no

risers) planed up and mortised together. Case up around the well-hole at the top to receive the plastering, and provide the steps with pine slat-rail.

To Scuttle. Build step-ladder reaching from attic floor to scuttle, with $1\frac{1}{4}$-inch lumber, neatly planed up and grooved together.

To Attic. Build the attic stairs, with $1\frac{1}{4}$-inch strings and treads, with enclosed soffit, and open risers. Enclose through servant's closet, from string to ceiling, with $\frac{7}{8}$-inch vertical beaded sheathing.

To Chambers. Principal flight. Build the principal flight of stairs from main to chamber hall, with $1\frac{1}{4}$-inch strings and treads, and 1-inch risers and facias; the steps front and back tongued. Return and mould the nosings, and mould the front string in a tasteful manner. Finish the wall string in correspondence with the base in the halls, and support the whole on 6×4-inch timbers rough bracketed to each tread. Surmount with $4\frac{1}{2}\times3$-inch toad-back moulded rail, $1\frac{7}{8}$-inch fancy turned ballusters of selected pattern, and provide with 8-inch octagon-turned and veneered newel, at the start. The rail, ballusters and newel to be of the best sound seasoned Black Walnut, oiled two coats, and well rubbed down at the completion.

WINDOWS AND GLASS.

Frames. Make the mullion window frame in parlor front, with box-head, and all other frames throughout, (above the cellar,) the usual box frames for double hanging the sash, with 2-inch best pulleys, iron weights and hemp cord.

Make the Cellar frames with 2-inch plank rebated for the sash to be hinged and opened upwards; the sash $1\frac{1}{2}$-inch thick.

Sashes. Make the attic frames and sash in the same manner; the sash to be hinged to open horizontally. Fasten these sash shut, with bolts, and open, with buttons.

Make the sash in wash room, and the small sashes in water closet $1\frac{1}{2}$-inch thick, and all other window sash throughout, $1\frac{3}{4}$-inch thick.

Glass. Glaze all the windows throughout, with the first quality of French sheet glass.

Glaze the upper panels of main entrance doors with the best quality of French polished plate glass, and the same panels in the rear hall door opening on veranda, with enameled glass of selected pattern.

DOORS.

THICKNESS. Make the front doors 2 inches thick, as per elevation and working drawings.

The 1st story principal room doors, $1\frac{3}{4}$ inch thick, and all other doors throughout, $1\frac{1}{2}$ inch thick.

PANELS. Make all the doors four panels each, and double face with mouldings.

HEIGHT. Make the parlor doors, 7 feet 9 inches in height, the remaining 1st story room doors, 7 feet 4 inches high, and all other doors throughout, 7 feet in height.

The width of the doors to vary as their several situations require, and as indicated on the plans.

HINGING. Hinge all the doors on the best quality of iron butts, of the size respectively required.

BOLTS. Put two wrought iron tail bolts, (long and short,) on the standing front, folding door, and two 8-inch malleable iron bolts on each other outside door.

LOCKS. Put a $6\frac{1}{2}$-inch mortise lock on the front door, with night latch and keys and bronzed medallion furniture.

5-inch mortise locks on the 1st and 2d stories, principal room doors, with bronzed medallion furniture in the main hall parlor and dining room, and white porcelain furniture on the remainder.

Put 5-inch rim locks on all other doors throughout with dark mineral furniture.

All the locks to be of the best and most approved manufacture.

SASH FASTENINGS. Fasten all the sash throughout when not otherwise specified with the most approved sash fastenings, corresponding in style with the lock furniture of the rooms in which they are situated.

BELLS.

Put up with copper wire in zinc tubes in a thorough workmanlike manner, the following gong bells. The pulls respectively to correspond in style of finish with the neighboring door furniture.

One pull from front door to kitchen.
do do dining room do
do do library do
do do parlor do
do do 2d story hall do
do do principal chamber to servants room in attic.

INSIDE FINISH.

TRIMMINGS, BASE, ETC. Trim all the doors with 1¼-inch jambs, and all the doors and windows throughout the first and chamber stories of the main building, with neat moulded architraves, 7 inches wide below, and 5 inches above. Trim throughout the kitchen wing, and in all closets, with plain chamfered architraves 4½ inches wide.

All the windows in principal rooms, to be trimmed down to the floors with framed, moulded and paneled backs, and elsewhere throughout on nosing sills with moulded aprons.

Put down 8-inch plain moulded base in the principal rooms of 1st story, 6½-inch do. in chambers, and 6-inch plain chamfered plinth elsewhere throughout (where not wainscoted). All the base to tongue down ⅜-inch into a moulded carpet strip, rebated to receive it.

WAINSCOT. Wainscot the walls of the kitchen and wash room, 3 feet in height above the floor, with ⅞-inch clear, tongued and beaded sheathing, 4-inch wide, and neatly cap.

BATH ROOM. Case up the bath-tub and water-closet with Black Walnut, and tongue down a plain beveled surbase over against the wall. Hinge both flap and seat of water-closet, with brass butts. Case up the wash-basin in a similar manner, enclosed below with paneled door, hinged on brass butts and fastened with snap-lock.

Build raised platform 8 inches in height, on which to set bath tub and water-closet, as indicated on the plans.

TANK. Construct a tank in attic, over the bath room, 6 feet 6 inches long, by 5 feet 4 inches wide, and 3 feet deep, framed in a substantial manner with

3×4-inch and 2×4-inch joist, lined with 1¼-inch tongued plank. The whole to be suspended upon 14×4-inch beams bearing upon main partition and intertie, and framed with headers of the same size over the partitions. The bottom of the tank to be firred and plastered in the bath room, finishing 7 feet 6 inches in the clear above the floor.

SHELVES, HOOKS, ETC. Shelve the closets and pantries as indicated on the plans and otherwise required, with clear lumber planed smooth, and put up the required number of double iron clothes-hooks. Both hooks and shelves to be fastened on neatly moulded cleets mitred at the angles.

Fit up each end of the waiters' pantry, with counter shelf, and two dovetailed drawers, as indicated on the drawing. Also provide kitchen pantry with two dovetailed drawers.

WOODEN MANTELS. Put up in two of the chambers, neat wooden mantels of the design selected by the owner from the examples herein given. The lumber used to be perfectly clear.

CUTTING, ETC. Do any necessary cutting, mending, and repairing, required by the work of gasfitters, plumbers, bell-hangers, and others.

OUTSIDE BLINDS.

Furnish plain outside blinds for all windows (except cellar and attic); hinged on best blind hinges and fastened with approved patent fastenings

PAINTING.

Properly stop with oil putty, all nail holes and other imperfections in the work to be painted, and size all exposed knots, etc.

Paint all the wood work of the building outside and inside, (exclusive of the inside floors, and inclusive of the piazza floors and outside steps, and the cutting in of the stairs) two good coats of the best English white lead and oil paint. Also, paint the kitchen fire-place, the chimney shafts, and the brick underpinning where exposed to view, two coats.

Thoroughly cleanse the tin roofs and gutters, and paint two coats of best metallic roof paint.

Grain the wood-work in kitchen and wash room, in imitation of light oak.

Finish all the work in color, as directed by the owner, or his appointed superintendent.

CLEANSING. Remove all waste material and rubbish accumulated by the carpenter, at the completion, and leave the building and premises thoroughly clean; scrub the floors, and wash the windows.

MATERIALS, ETC.

LUMBER. Furnish all the lumber of white pine where not otherwise specified, of good sound quality, and as well seasoned as the market affords. All the sashes, panel work and interior trimmings to be of clear lumber.

The entire work to be completely finished in the best manner of the style specified.

Any work exhibited by the drawings to be executed by the contractor, though unmentioned herein.

MASONS' SPECIFICATION.

DESIGN No. 1.

EXCAVATING.

Do all the necessary excavating for the cellar, dwarf wall under laundry extension, cistern, cesspool and sink. Grade the excavated earth around the building as may be directed.

Lay aside the top soil and sods at the commencement, and replace over the graded surface at the completion.

WALLING.

STONE WALLS, ETC. Build the cellar and foundation walls of good building stone, of flat bed and firm build, laid in hydraulic ground lime, and sharp, clean sand mortar. Lay down substantial flat-stone foundations under the chimneys, and girder posts in the cellar.

Lay down a flat stone not less than 18 inches diameter under the piazza locust under-posts, bedded below the action of the frost. Fill in around the posts up to the grade level with small broken stone packed in dry.

Lay down footings under all the walls of the building, of flat stones not less than 2 feet long and 6 inches thick, bedded cross-wise of the walls on the natural undisturbed earth. Build the walls from thence up to the grade in height, by and full to a line on the inner face, and flush and point at the completion. These walls to average 20 inches in thickness—the greater breadth at the base.

PRIVY-SINK. Stone up the privy sink, 8 feet deep, of the size shown on the plans.

and line with 4 inches brick work. Flush the inner face smoothly with hydraulic cement, and connect with cesspool through earthen drain pipe properly trapped.

CESSPOOL, ETC. Stone up a cesspool 3 feet in diameter and 8 feet deep, covered with a 3-inch rough flag, provided with man-hole, etc., complete.

Make the necessary connections with the cistern to receive the overflow, through earthen pipe of the required size.

BRICK-WORK. Build the wall from the top of the cellar stone walls, 16 inches in height, and 12 inches thick. These walls to be flush with the stone walls on which they bear, on the inner face, and the joints flushed full and rubbed for painting on the exterior, where exposed to view.

Build the brick walls under sills of laundry extension the same height and 8 inches thick; these walls to bear upon the centre of the dwarf-foundation walls below. Finish the exterior face as above described.

CHIMNEYS. Build the chimneys, ash pits, etc., as per plan. Build a ventilating flue in the kitchen, and provide for registers in the kitchen and bath room. Strike the joints and smoothly parget all the flues. Top out above the roof as per drawings, with selected brick cut where required and prepared for painting. Face the throat, jambs and breast, of the kitchen fire-place, with selected brick prepared for painting.

Turn trimmer arches against all the hearths, and furnish the required rough brick, mortar and plaster for setting the mantels, hearths and range.

CISTERN. Build a cistern where directed, 10 feet diameter and 10 feet deep, with 8-inch walls, 4-inch arch and neck, and 5-inch bottom, (two courses on the flat,) the whole laid in and smoothly coated on the inside with cement. Lay a strong rough flag over man-hole in the neck. Connect the cistern with house leaders, through 5-inch vitrified pipe laid in below the action of the frost.

All the above mentioned brick work to be built with the best quality of hard-burnt common brick, laid in strong mortar formed with the usual materials for first class work.

NOGGING. Fill in the entire frame of the building below the attic floor, with pale brick, laid on edge in mortar; all joints flushed full.

BLUE-STONE.

KITCHEN HEARTH. Furnish a rubbed blue stone kitchen hearth, of the size shown on the plans, and not less than 4 inches thick; also, provide a lintel for the fire-place, 5 feet 6 inches long, 8 inches rise, and 4 inches bed.

WINDOW SILLS. Provide the cellar windows, with 4-inch blue stone axed sills, of 5 inches bed and the required length.

FLAGS. Provide smoothly dressed flags, 2 feet wide by the required length, at the foot of the outside entrance steps.

PLASTERING.

Lath the cellar ceiling, and the walls and ceilings of the 1st and 2nd stories, with the best quality of dry seasoned lath, securely nailed to each stud, and joints broke every sixth lath.

Plaster the cellar ceiling one good coat, and the remaining walls and ceilings, where lathed, three coats—scratch, brown and hard-finish—with the very best materials in use.

CORNICES. Run neat moulded cornices of about 5 inches rise, and 8 inches projection, in the parlor, main hall and dining room.

CENTRES. Put up small enriched centres of such pattern as the owner may select.

ANGLE BEADS. Plaster small return beads on all exposed plaster angles, splayed off at the top and bottom.

ARCHES. Finish the segmental arches in the main and chamber halls, with 2-inch Boutelle moulding on the soffit angles as shown by the detail drawings.

Excepting behind the kitchen wainscot, the plastering in all cases to extend up to the grounds and down to the floors.

REMOVAL OF RUBBISH, ETC. The entire Masons' work to be delivered up in thoroughly good order and repair at the completion, and all of the Masons' waste material and rubbish accumulated during the progress of the work, to be removed from the premises, or disposed about them, at the option of the owner.

DESIGN No. 1.

PLUMBERS' SPECIFICATION.

Specification of the Plumbing Work and materials required in erecting House per Design No. 1.

IRON SOIL PIPE. Furnish and connect with privy sink a 4-inch cast-iron soil pipe, and extend the same up and behind the kitchen flue a sufficient height above the 2d story floor to receive the overflow from the tank. Connect with water-closet in bath-room through 4-inch lead soil pipe, weighing not less than 6 pounds to the foot, properly trapped. Put up the iron pipe with iron holdfasts, and caulk all the joints water-tight with lead.

SUPPLY PIPE. Furnish a $\frac{3}{4}$-inch B lead supply pipe and connect with the attic tank, and extend it down and connect it with the boiler in kitchen.

BOILER. Furnish and set on iron stand in wash-room where shown on the plans, a 40-gallon copper boiler, round head and riveted, well hooked, soldered, and smoothly planished. Connect the same with the brass pipes of the water-back of the range by 1-inch copper pipes. Provide with circulation pipe, etc., complete.

SINK. Furnish and put up a 36 in. × 20 in. × 6 in. cast-iron sink, with iron legs, and supply it with hot and cold water, through $\frac{5}{8}$-inch B supply pipes, $\frac{5}{8}$-inch finished flange bibb cocks, 3-inch waste pipes and traps, and brass trap screw. Provide a copper branch and stop-cock below the sink for emptying the boiler.

WASH-TRAYS. Supply the two wash-trays in wash-room with hot and cold water through $\frac{5}{8}$-inch strong B lead pipes, and $\frac{5}{8}$-inch finished brass flange and thimble tray drawer cocks. Provide with strainers, plugs and chains, and overflow from one tray to connect with waste-pipe. Furnish 3-inch main lead waste-pipe, weighing 5 pounds per lineal foot, trapped and connected with soil pipe, with 2-inch branch wastes connected with each tray. Trays to be lined with zinc.

FURNACE. Supply the furnace with cold water through $\frac{1}{2}$-inch strong B lead pipe, a 24 in. × 24 in. × 12in. cistern lined with $4\frac{1}{2}$-pound lead, a 4-inch copper ball and ball-cock, and connect with the evaporator by a copper pipe.

WATER-CLOSET. Furnish and set in 2d story, as per plans, a best constructed pan closet, with white marble pattern basin, Wedgewood ware, enameled receiver and silver plated cup and handle. Provide with 24 in. × 14 in. × 14 inch cistern lined with 4-pound lead, and furnished with box, valve wire, 5-inch copper ball and ball-cock, etc., complete. Make the closet trap of 6-pound sheet lead.

WASH-BASIN. Furnish and put in complete, in the 2d story, as per plans, a $14\frac{1}{2}$-inch very best marble pattern Wedgewood-ware basin, supplied with hot and cold water, through $\frac{1}{2}$-inch strong B lead pipe, No. 3 silver-plated upright basin cocks, with the requisite strainers, plug, chain and overflow, plated as above. Provide with white Italian veined marble top and base; the base 12 inches high; countersink the top, and mould the edge of it and the base; furnish with $\frac{1}{2}$-inch overflow pipe and $2\frac{1}{2}$-inch trapped lead waste.

BATH. Furnish and fit up in 2d story, as per plans, one 18-oz. sheet copper, tinned and planished bath, supplied with hot and cold water, through $\frac{5}{8}$-inch strong B lead pipe, $\frac{5}{8}$-inch silver-plated flange cocks, and waste through $1\frac{1}{2}$-inch lead waste pipe, properly trapped, and supplied with silver-plated plug and chain. Provide with $\frac{1}{2}$-inch overflow pipe and silver-plated strainer. Furnish and fit up over the tub an 8-inch copper rose shower, of the best pattern, tinned and planished. Supply with cold water through $\frac{1}{2}$-inch strong B lead pipe and silver-plated stop-cock.

STOP-COCKS. Provide and put in all necessary stop-cocks as required and directed. Properly trap and grade all the pipes.

ATTIC TANK. Line the attic tank $5\frac{1}{2}$ ft. × 6 ft. × 3 feet deep throughout with $4\frac{1}{2}$-pound sheet lead, well spotted, tacked and soldered. Furnish with $3\frac{1}{2}$-inch lead overflow pipe, and connect with soil pipe to privy sink.

PUMP. Furnish and fit up by the side of sink in wash-room, one of "Carr's" $35 combination lift and force pumps. Connect the same with cistern and well through $1\frac{1}{4}$-inch strong B lead pipes, provided with $2\frac{1}{4}$-inch stop-cocks, one on each pipe placed beneath the pump. Connect the pump with attic tank through 1-inch strong B lead pipe.

RANGE. Furnish and set in kitchen fire-place one of the most approved Cooking Ranges of the largest size the space assigned will admit, and of the kind selected by the owner. Fit up with all the requisite appliances, water-back, etc., and complete the present provision for discharging the ashes into the pit below.

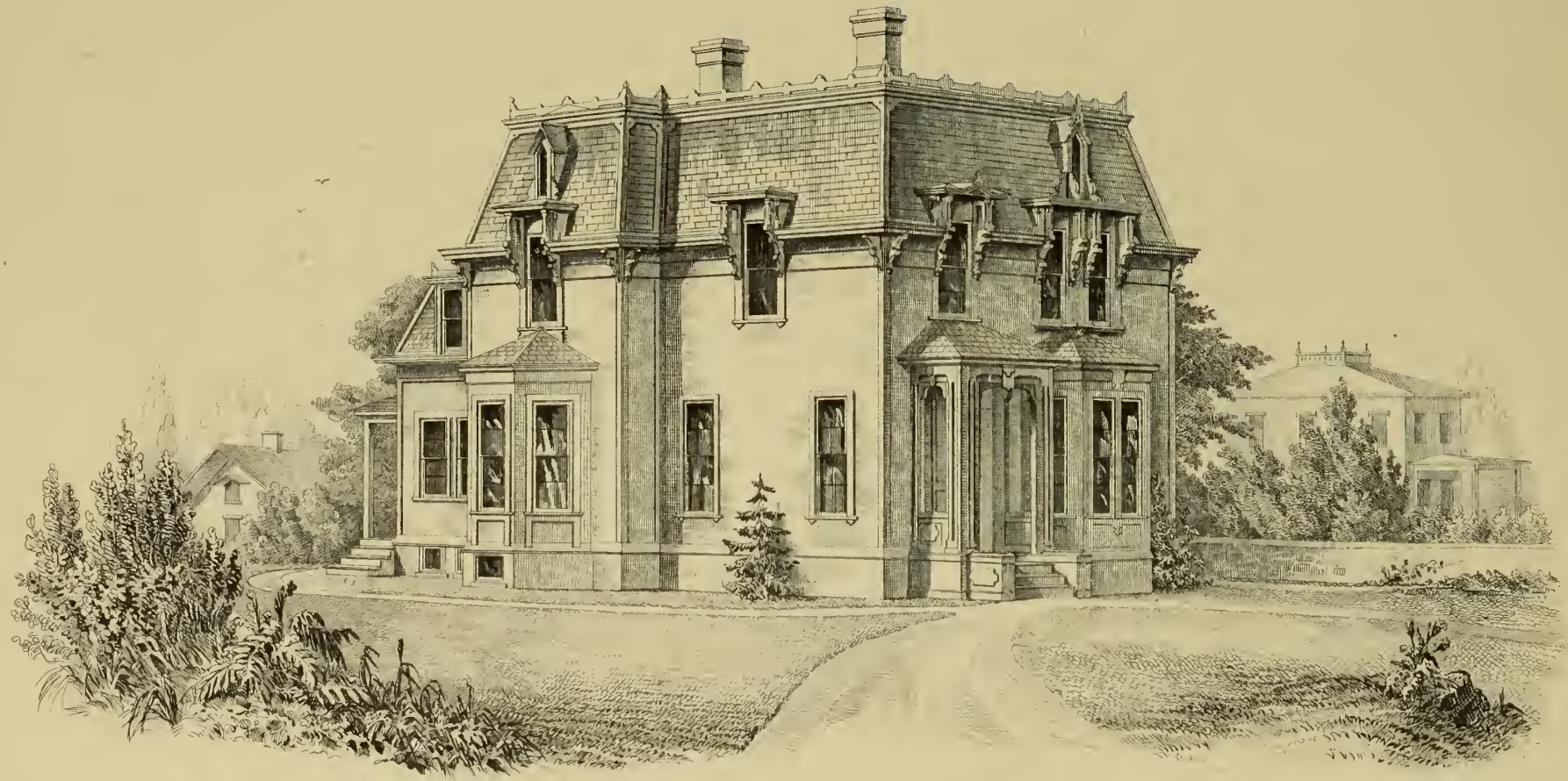
WORKMANSHIP, ETC. All the work to be executed in the best and most thorough workmanlike manner, and warranted perfect and substantial in operation at the completion. All the plated work to be of the best, first-class description, and the pipes and metal used to be *fully up to the standard called for.* This will be *rigidly enforced* by the Superintending Architect.

Any other required pipes or other work or materials, to supply, empty and connect the several works, to be furnished.

Upon a due and sufficient performance of the work a certificate will be furnished by the Architect.

Design No. 2.

Plate No. 5.



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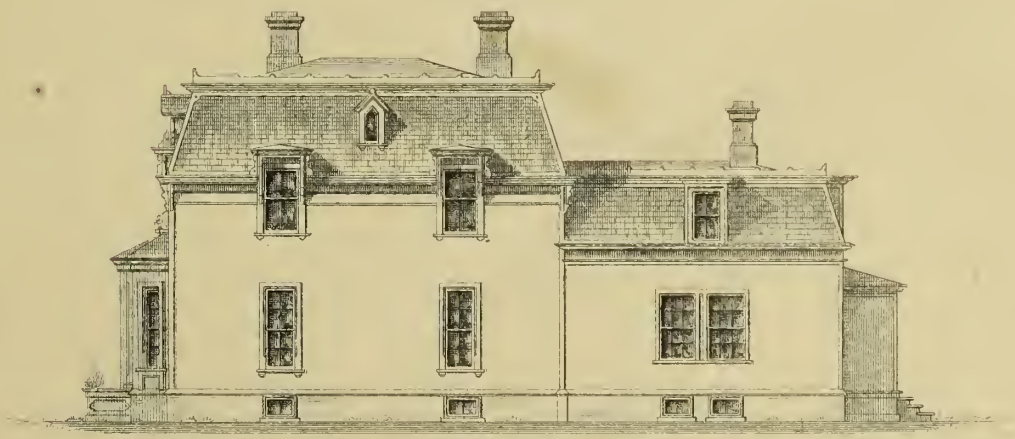
Design No. 2.

Plate No. 6

FRONT ELEVATION

SCALE. ⅛ Inch to One Foot

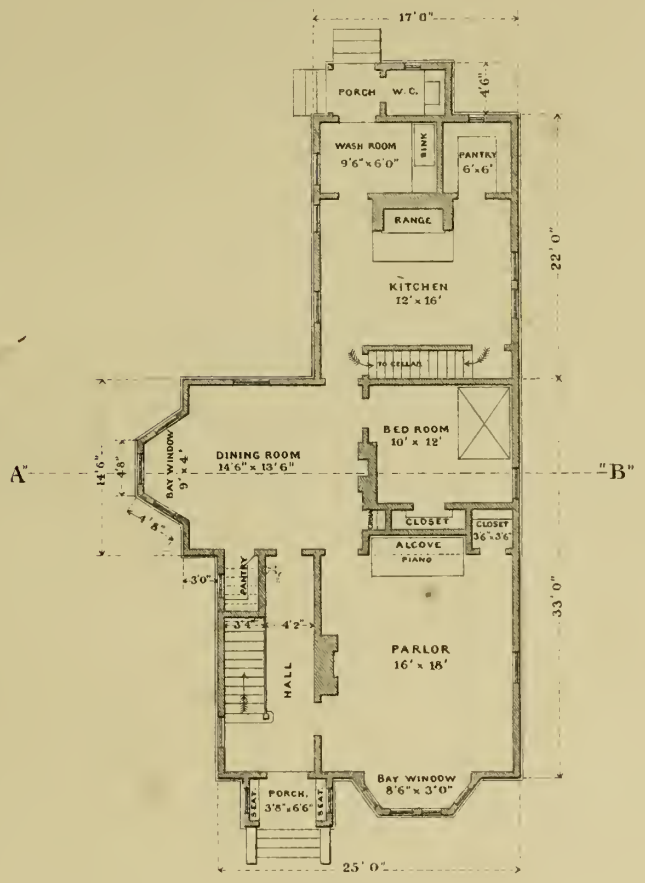


SIDE ELEVATION.

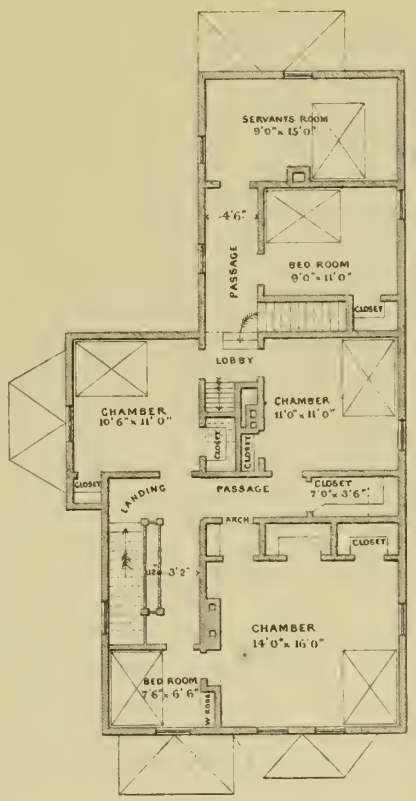
SCALE. 1/16 Inch to One Foot.

Design No. 2.

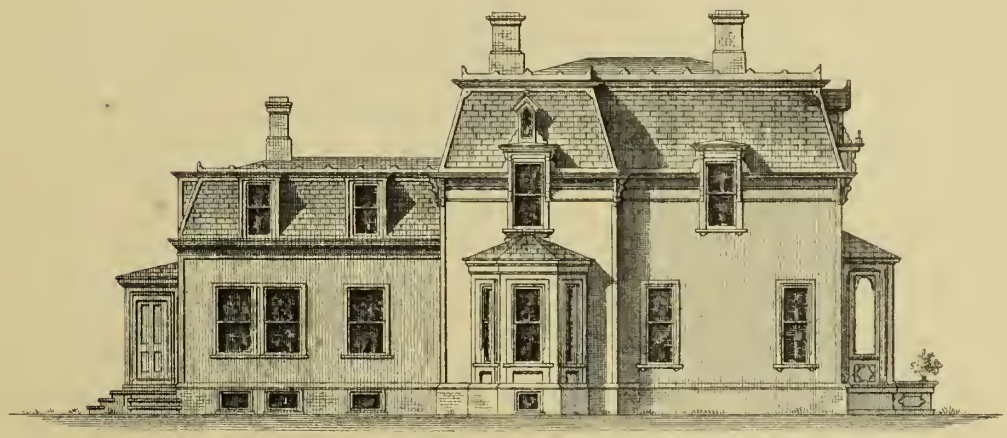
Plate No. 7.



— Ground Floor Plan —



— Chamber Plan —

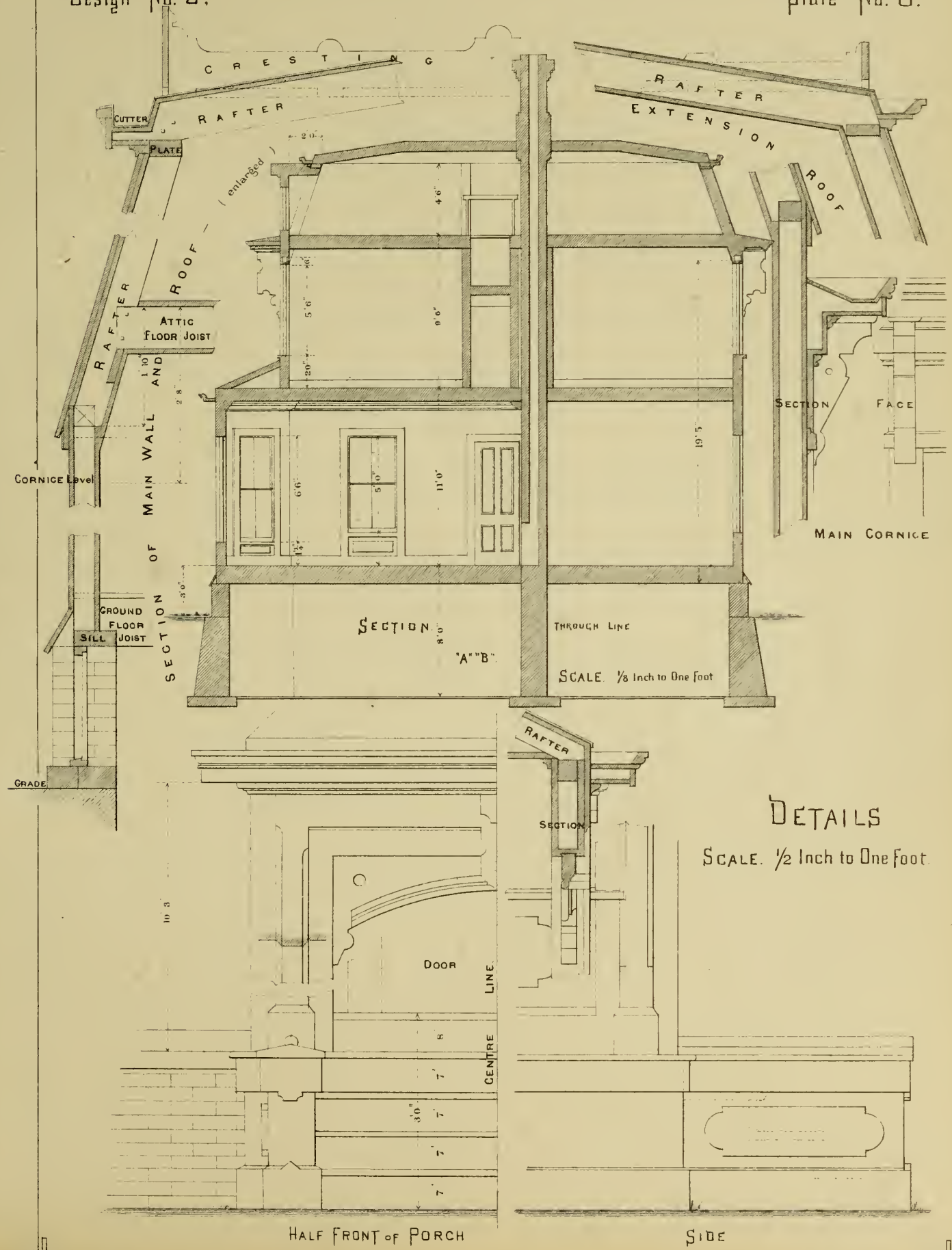


— Side Elevation. —

Scale. 1/16 Inch to One Foot.

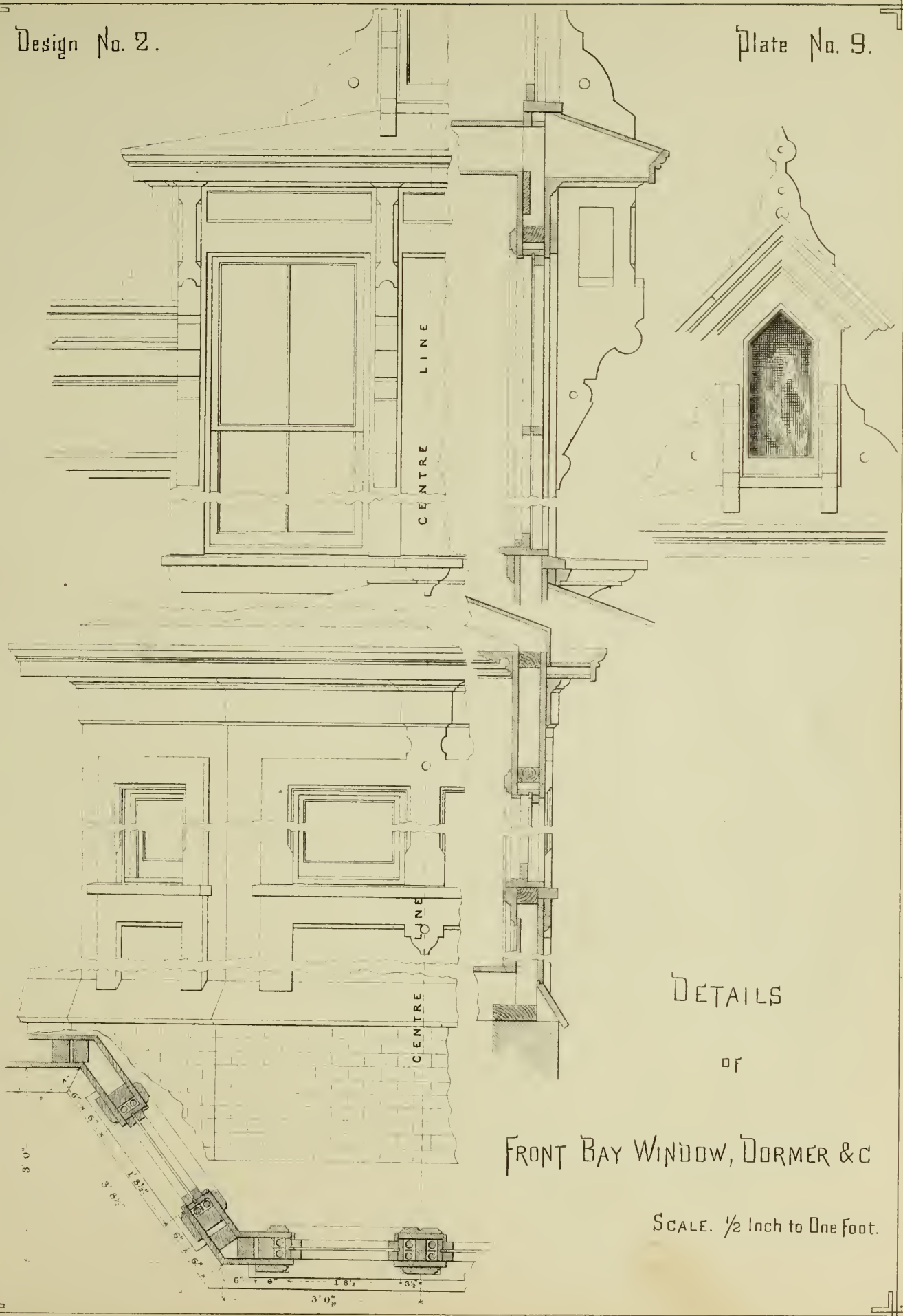
Design No. 2.

Plate No. 8.



Design No. 2.

Plate No. 9.



Details

of

Front Bay Window, Dormer &c

Scale. ½ Inch to One Foot.

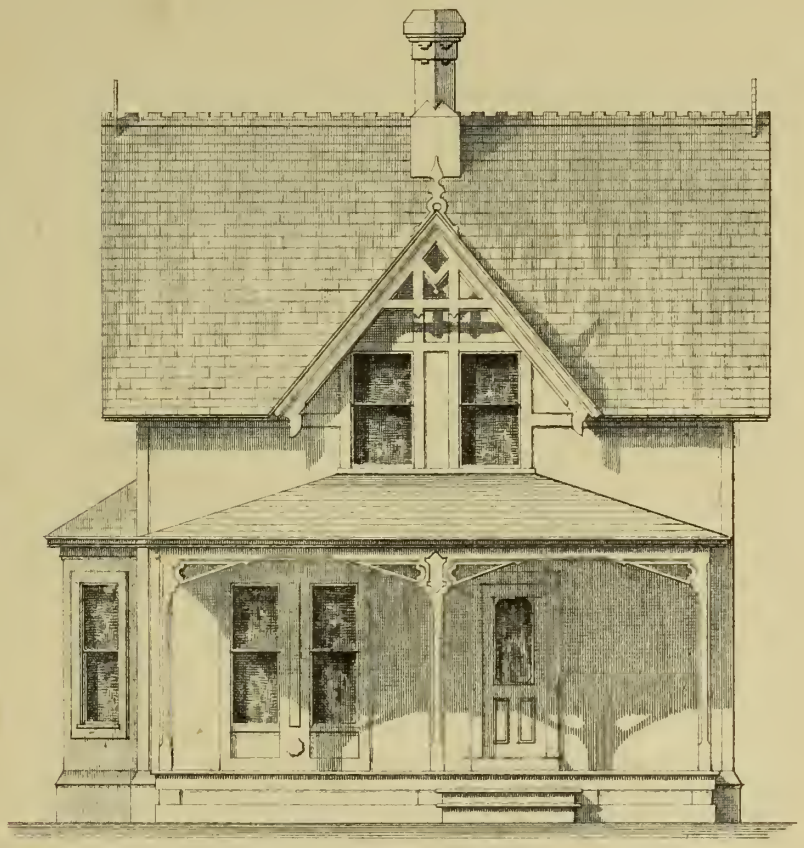
Design No. 3.

Plate No. 10.

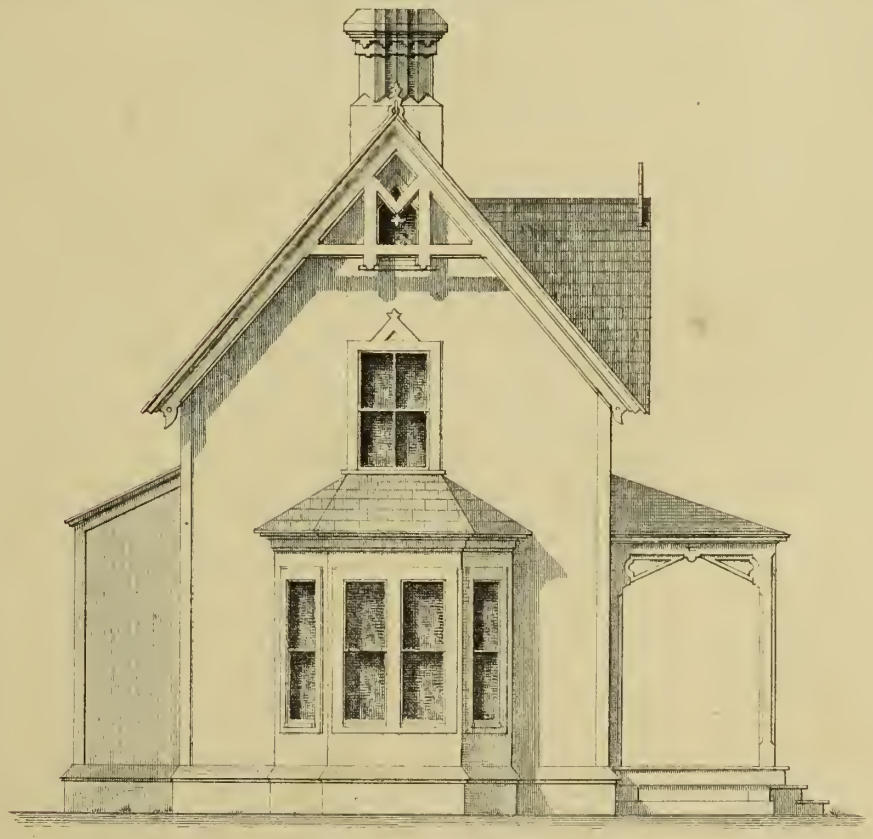
Engr & print by KORFF BROTHERS 54 William St N

Design No. 3.

Plate No. 11.



— Front Elevation. —

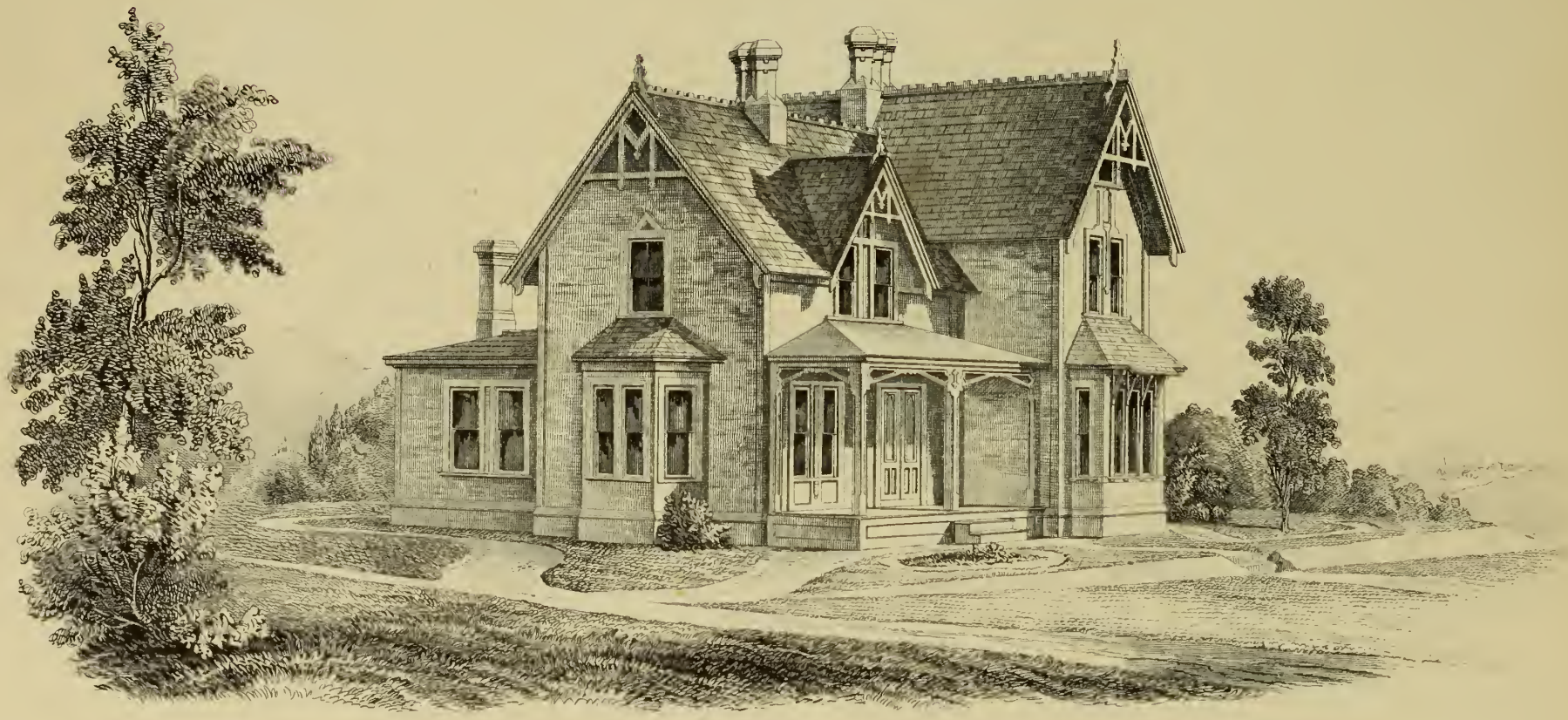


— Side Elevation. —

Scale. ⅛ Inch to One Foot.

Design No. 4.

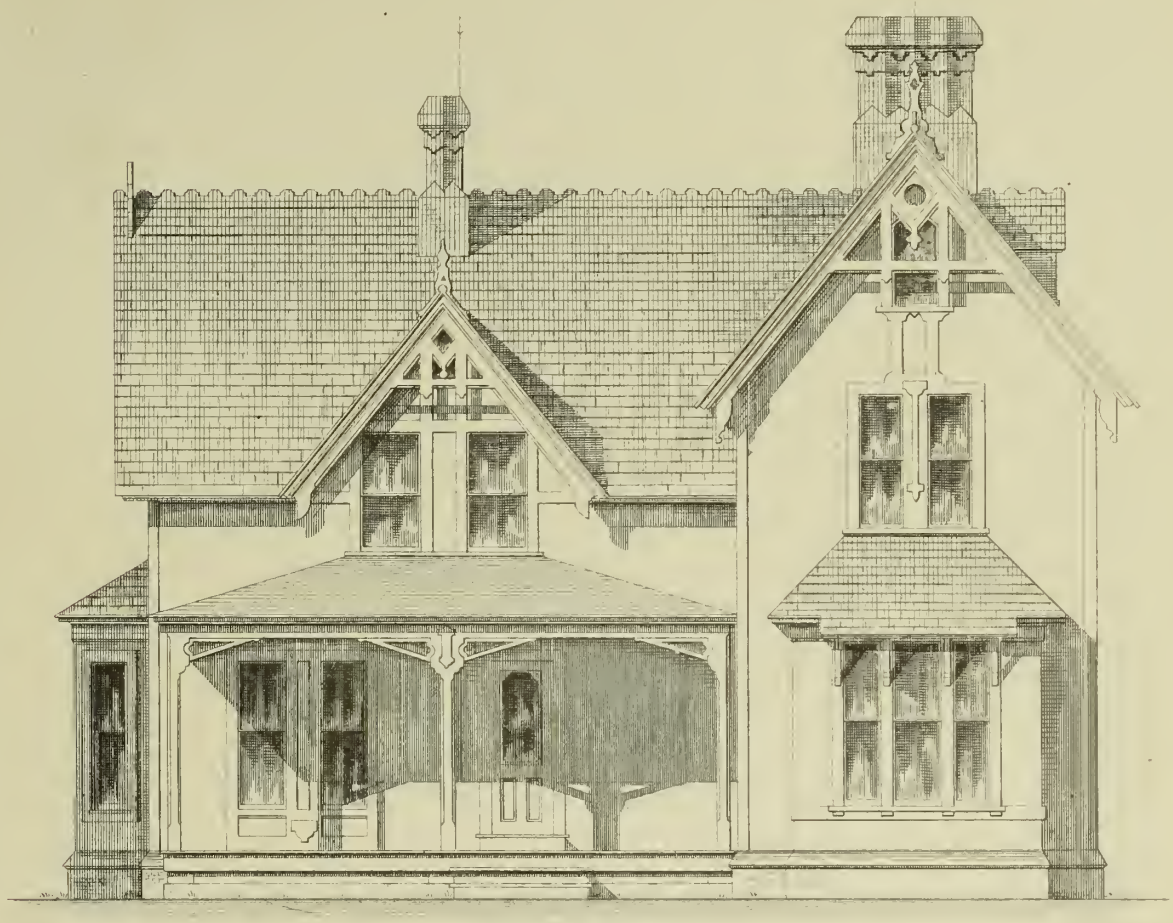
Plate No. 12.



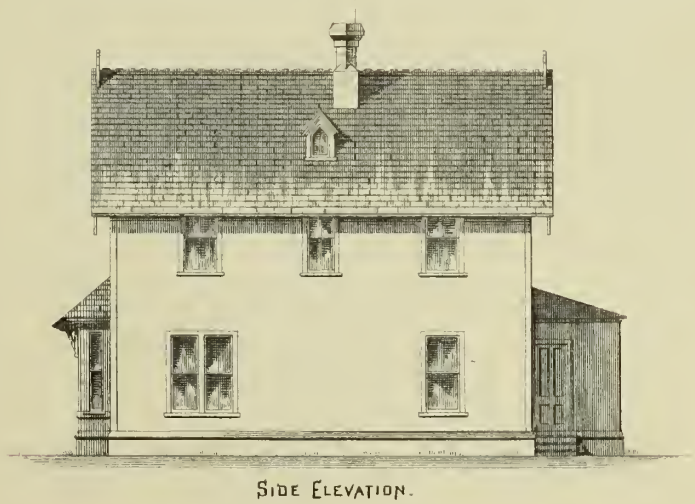
Engr & print by KORFF BROTHERS 54 William St N Y

Design No. 4.

Plate No. 13.



FRONT ELEVATION
SCALE. ⅛ Inch to One Foot



SIDE ELEVATION.
SCALE. 1/16 Inch to One Foot.

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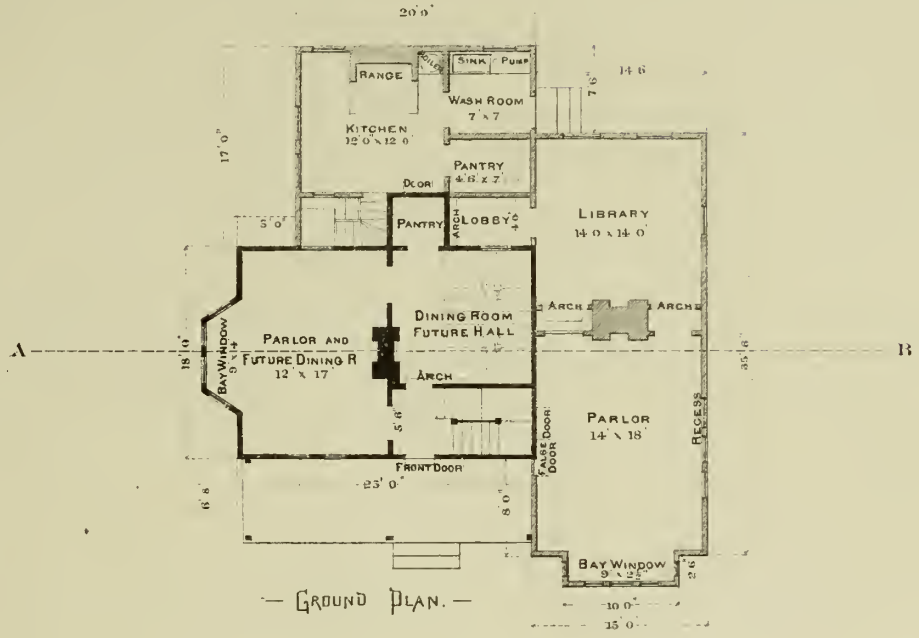
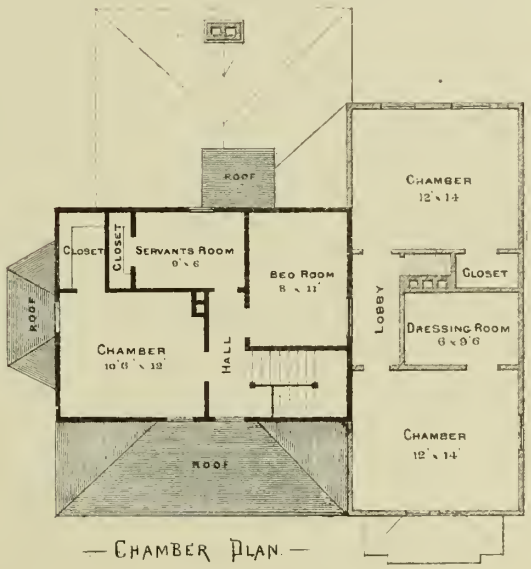
Design No. 3. 4.

Plate No. 14.



— Ground Plan. —

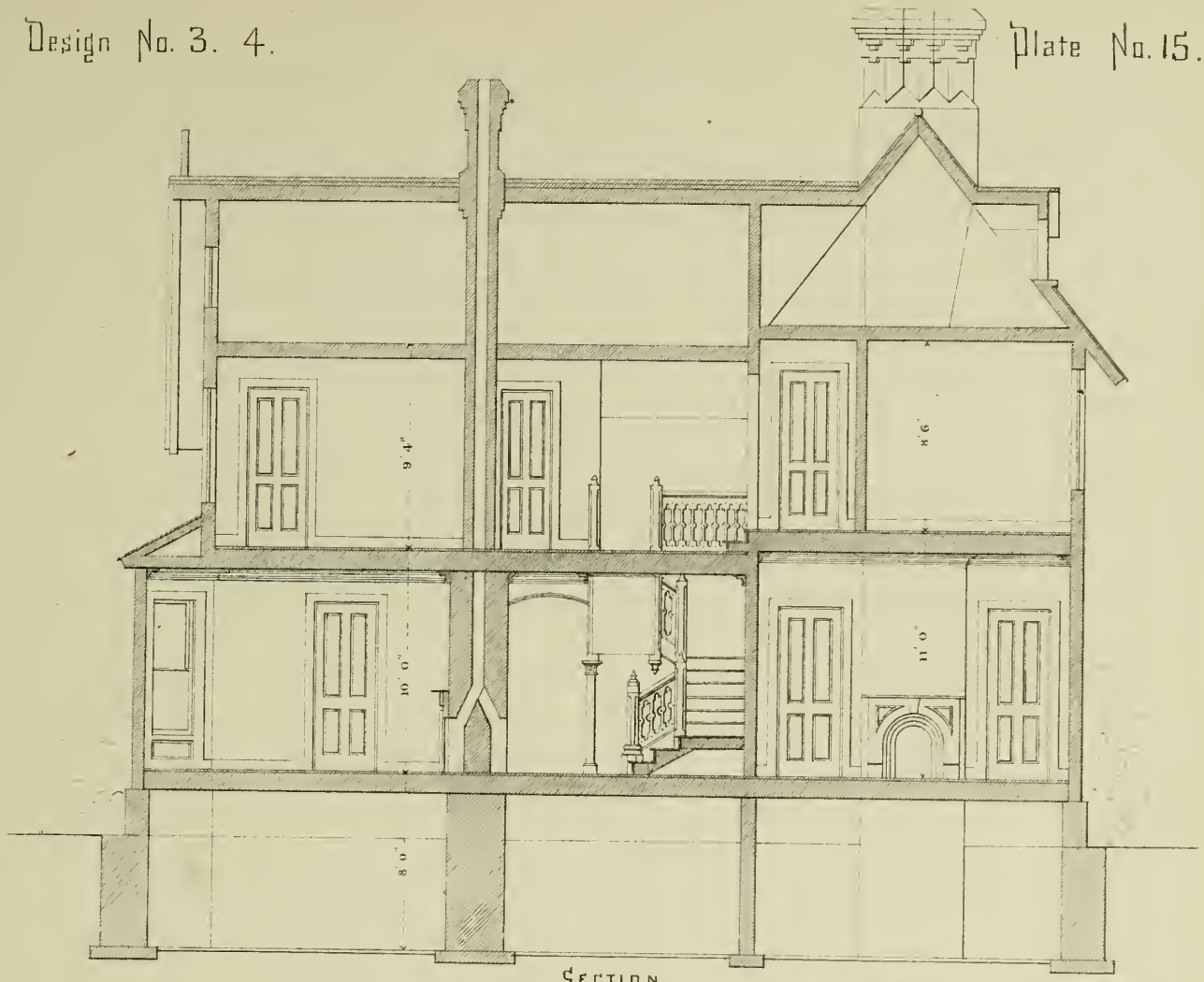


— Chamber Plan. —

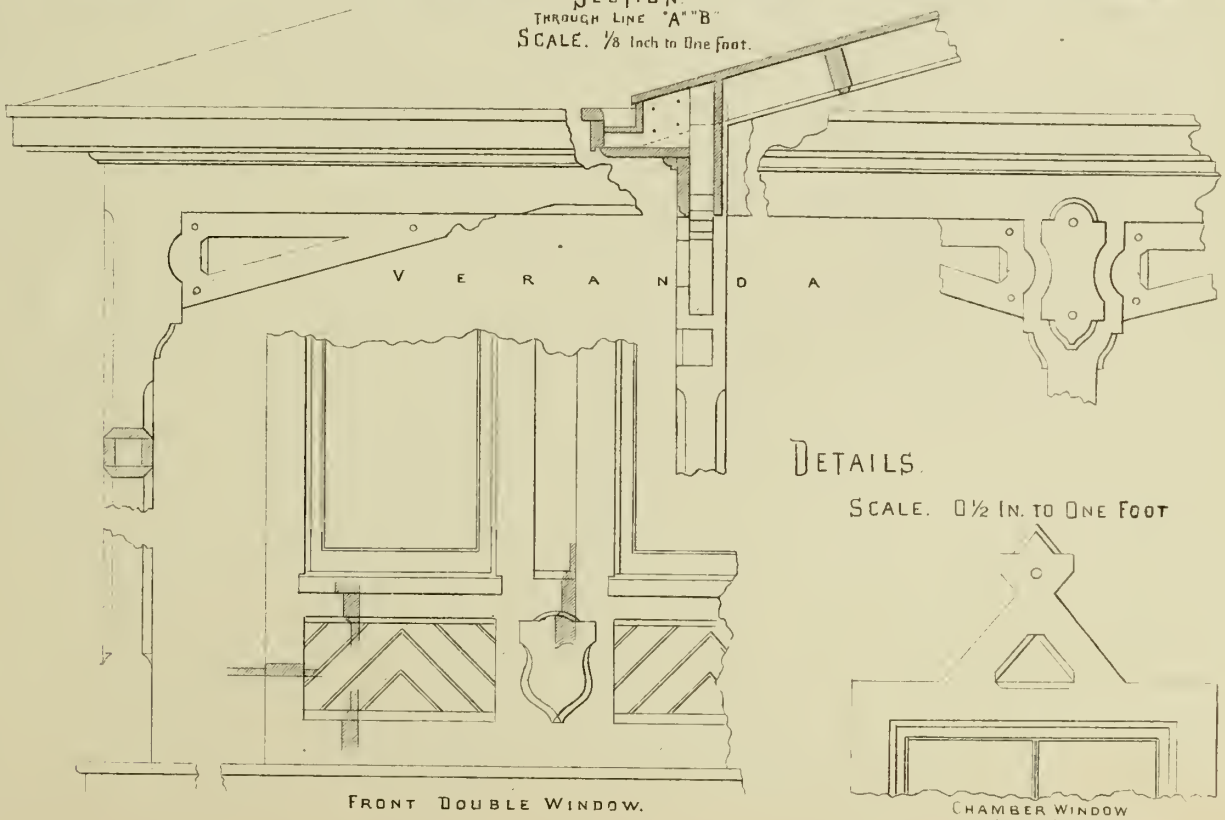
Scale. 1/16 Inch to One Foot.

Design No. 3. 4.

Plate No. 15.



SECTION
THROUGH LINE "A" "B"
SCALE. 1/8 Inch to One Foot.



FRONT DOUBLE WINDOW.

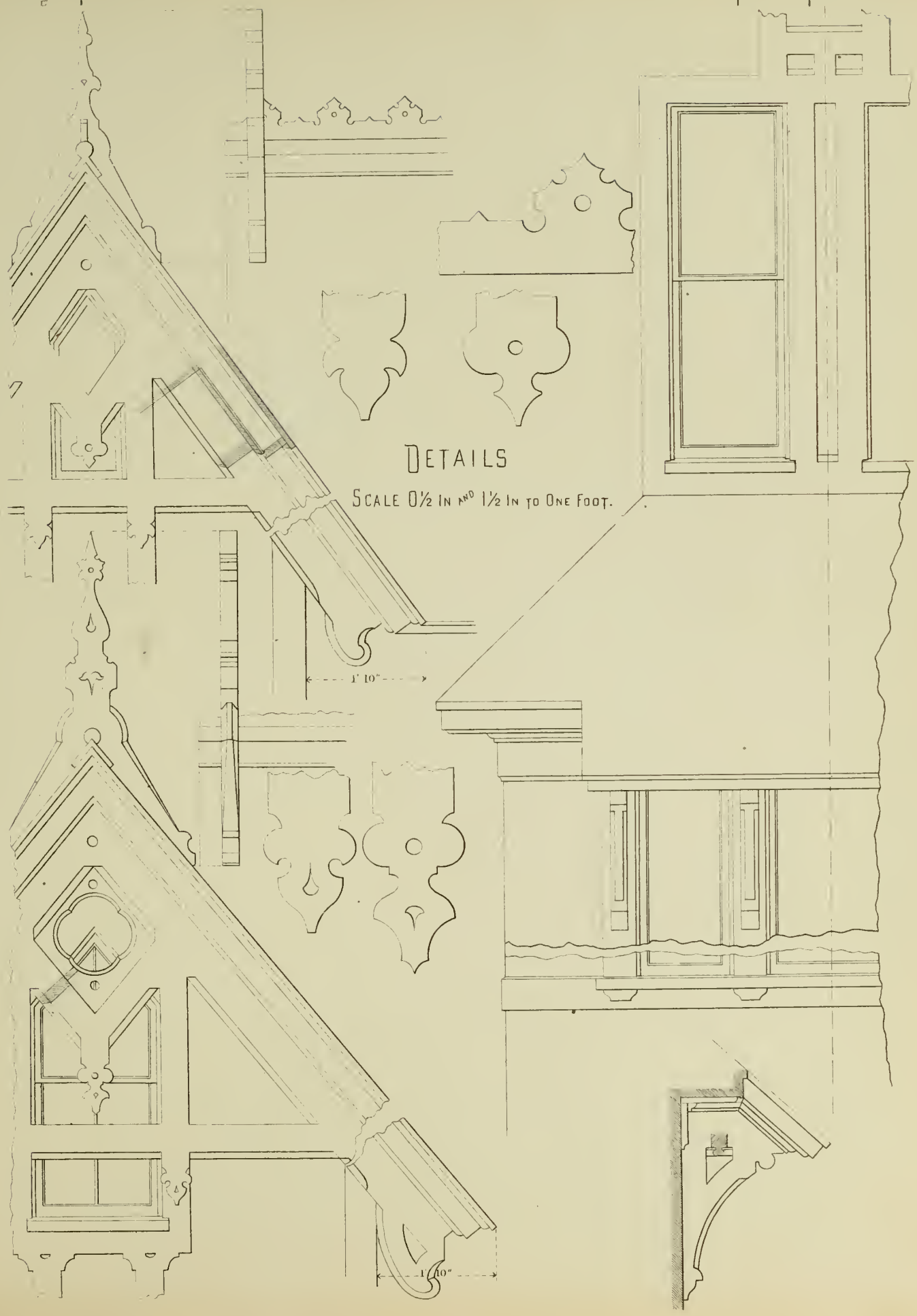
DETAILS.

SCALE. 0½ IN. TO ONE FOOT

CHAMBER WINDOW
IN SIDE GABLE.

Design No. 3. 4.

Plate No. 16

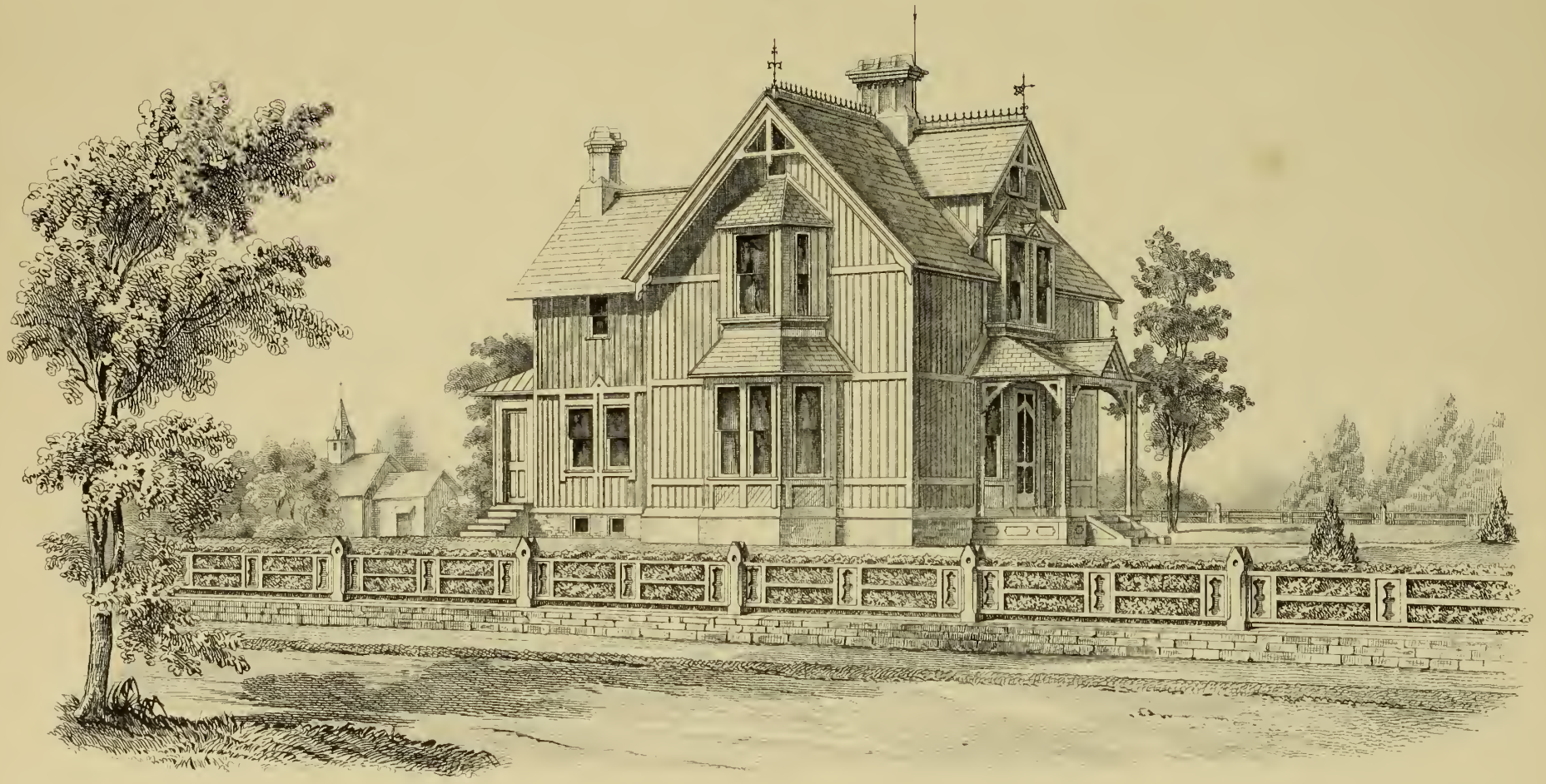


DETAILS

SCALE 0½ IN AND 1½ IN TO ONE FOOT.

Design No. 5.

Plate No. 17.



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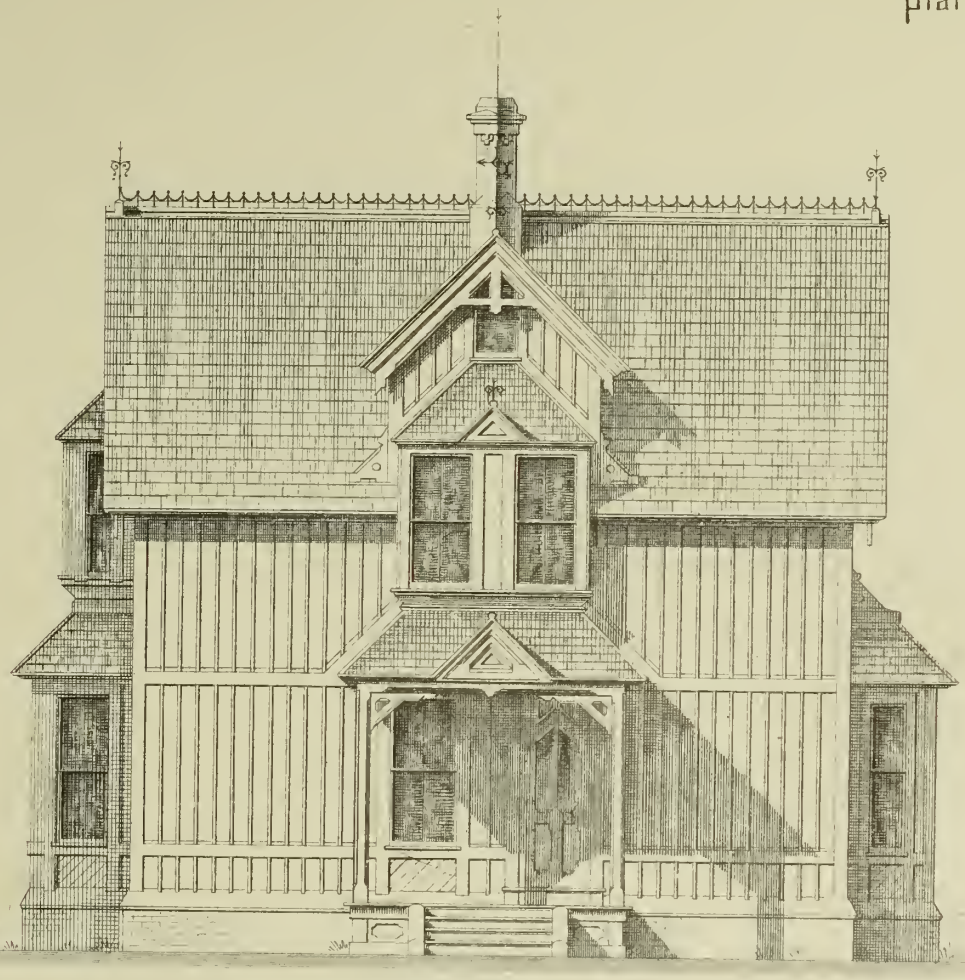
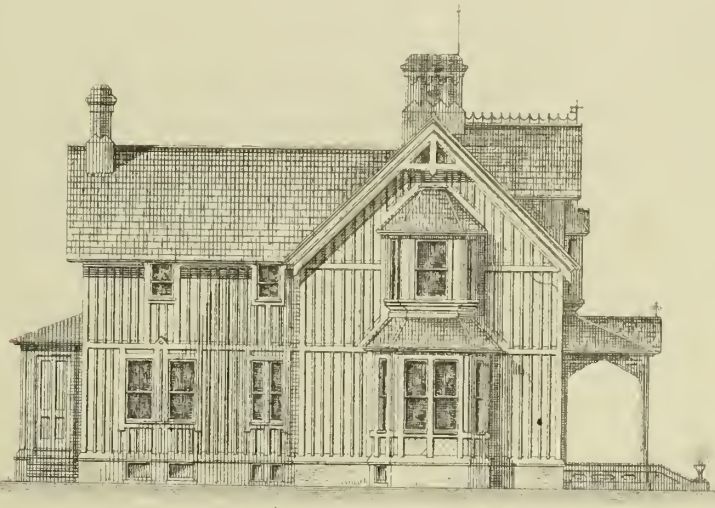
Design No. 5.

Plate No. 18.



FRONT ELEVATION

SCALE. 1/8 Inch to One Foot



SIDE ELEVATION.

SCALE. 1/16 Inch to One Foot.

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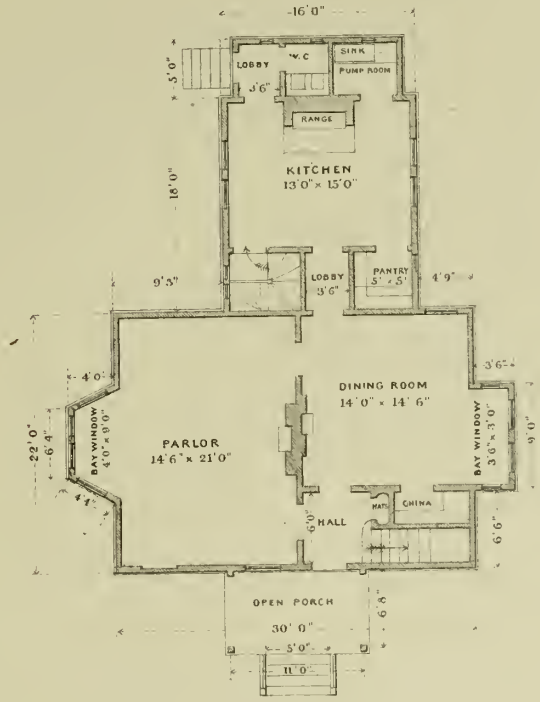
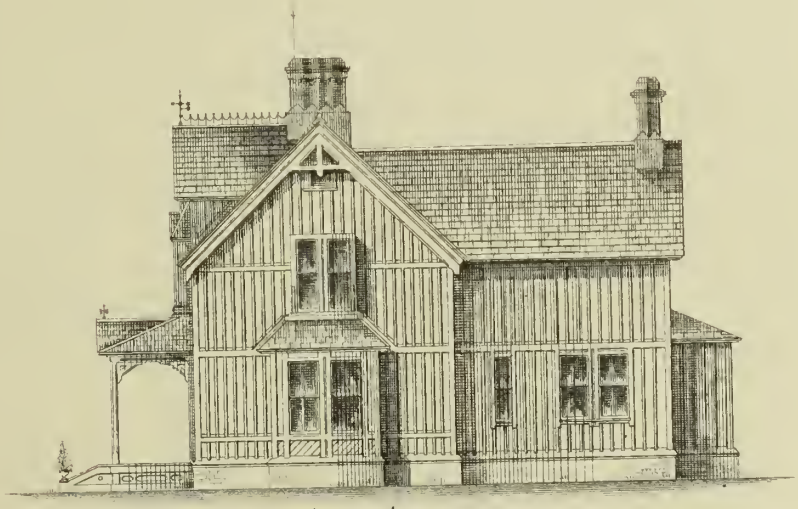
Design . No. 5.

Plate No. 19.



Ground Plan.

Chamber Plan.

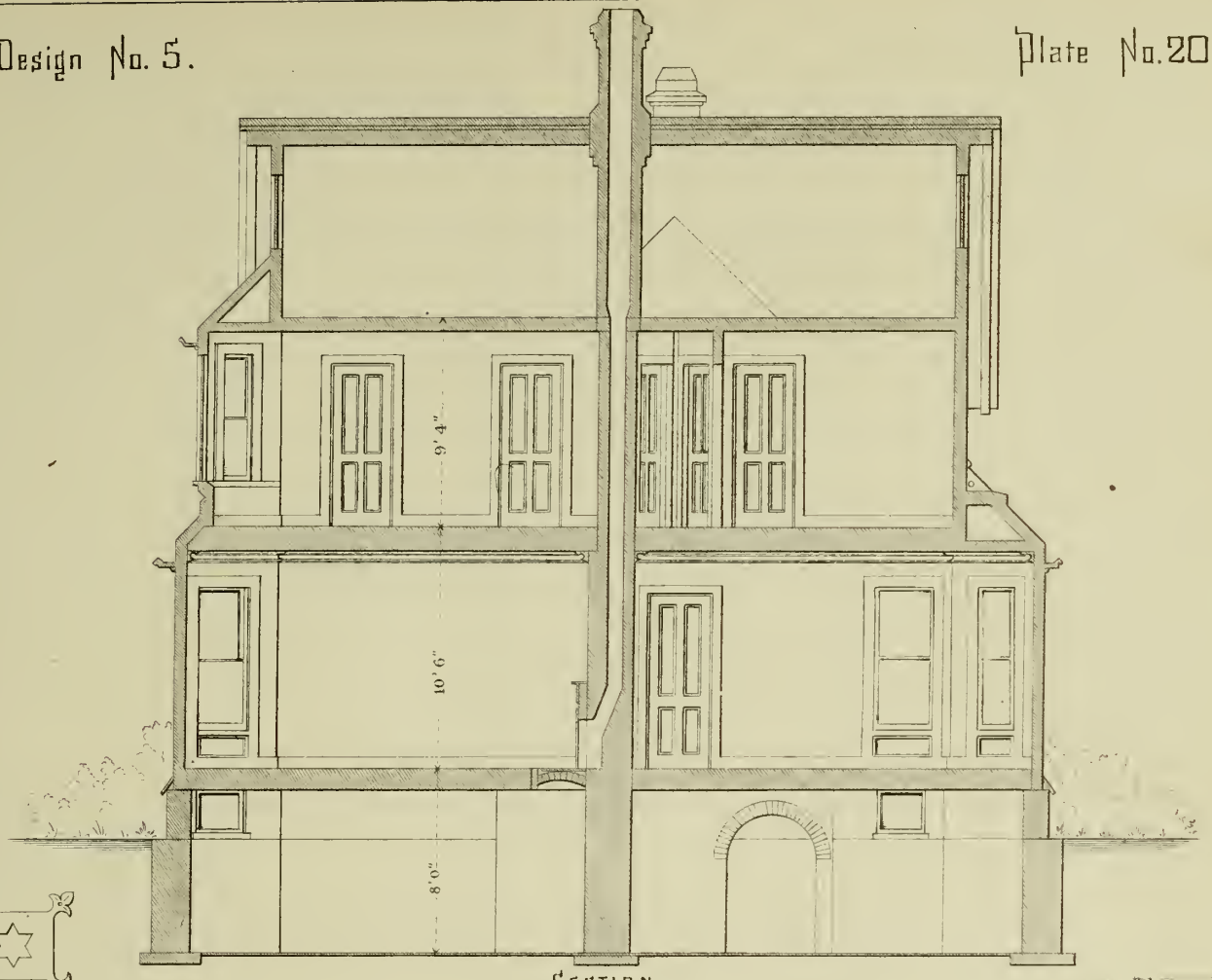


Side Elevation.

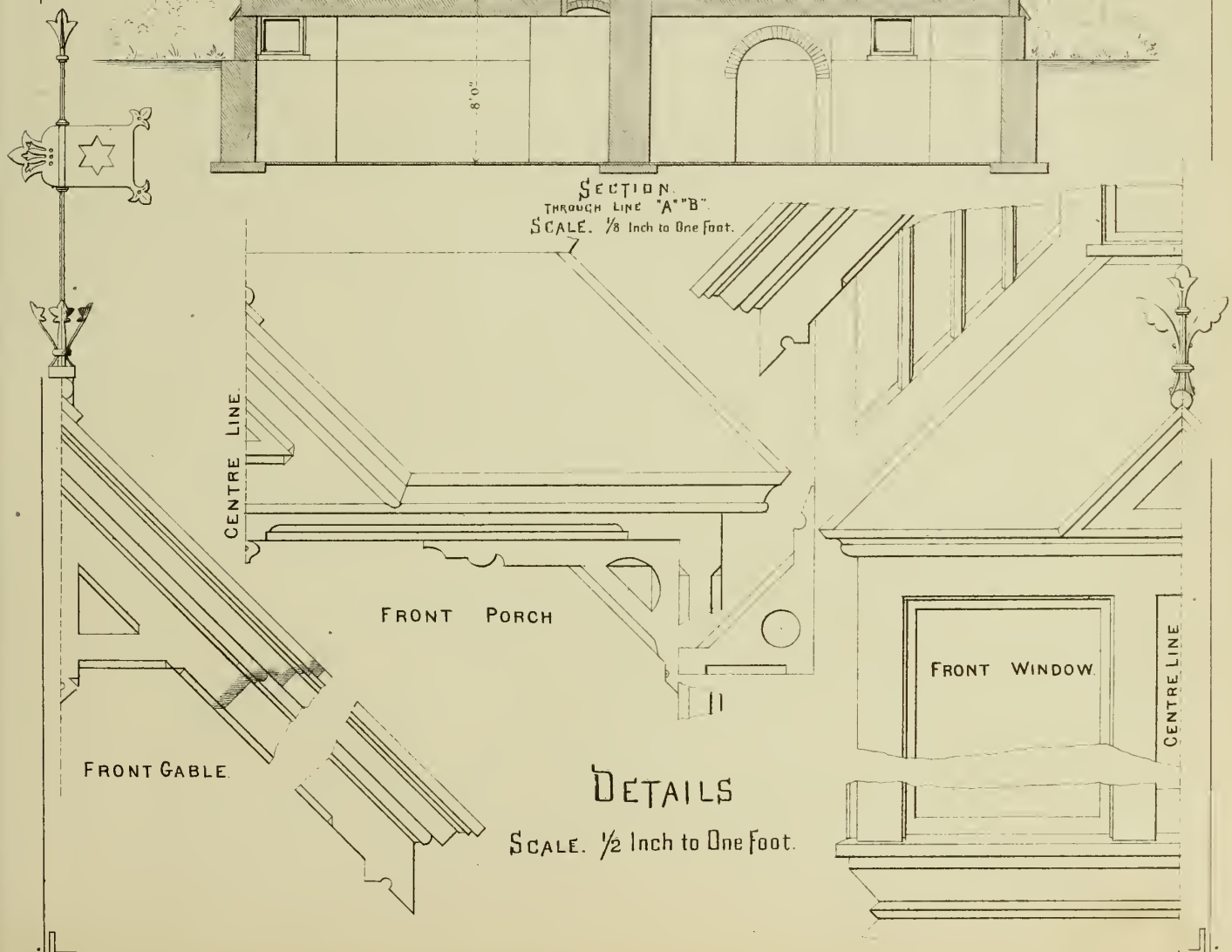
Scale. 1/16 Inch to One Foot.

Design No. 5.

Plate No. 20.



SECTION.
THROUGH LINE "A" "B".
SCALE. 1/8 Inch to One Foot.

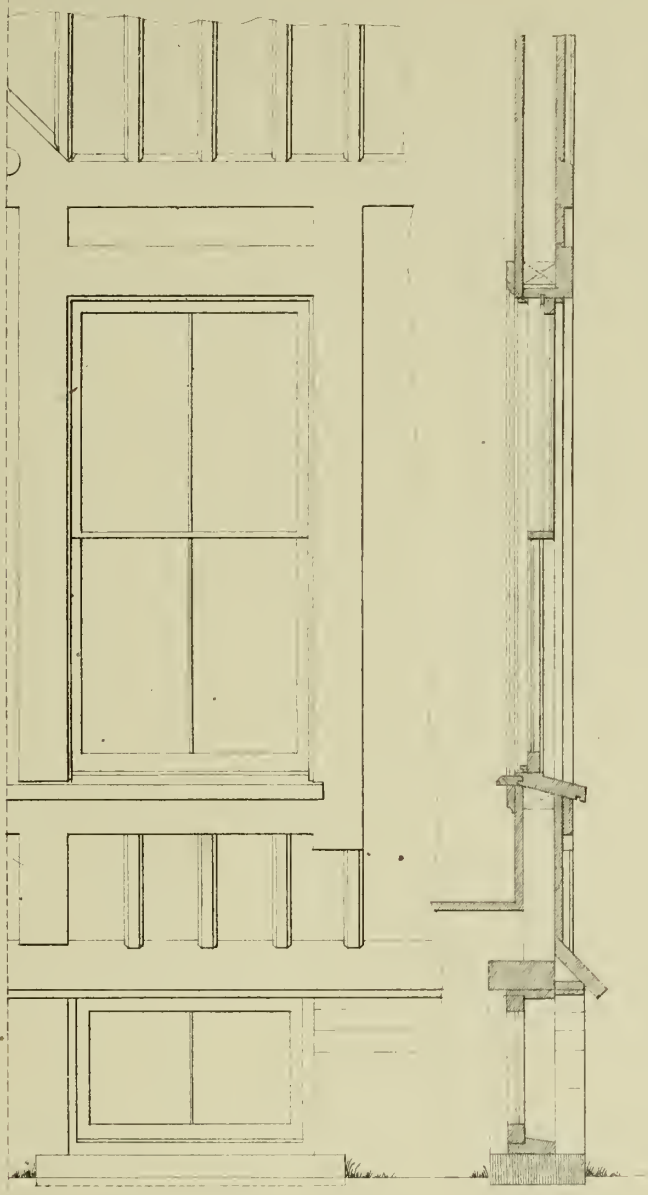


DETAILS

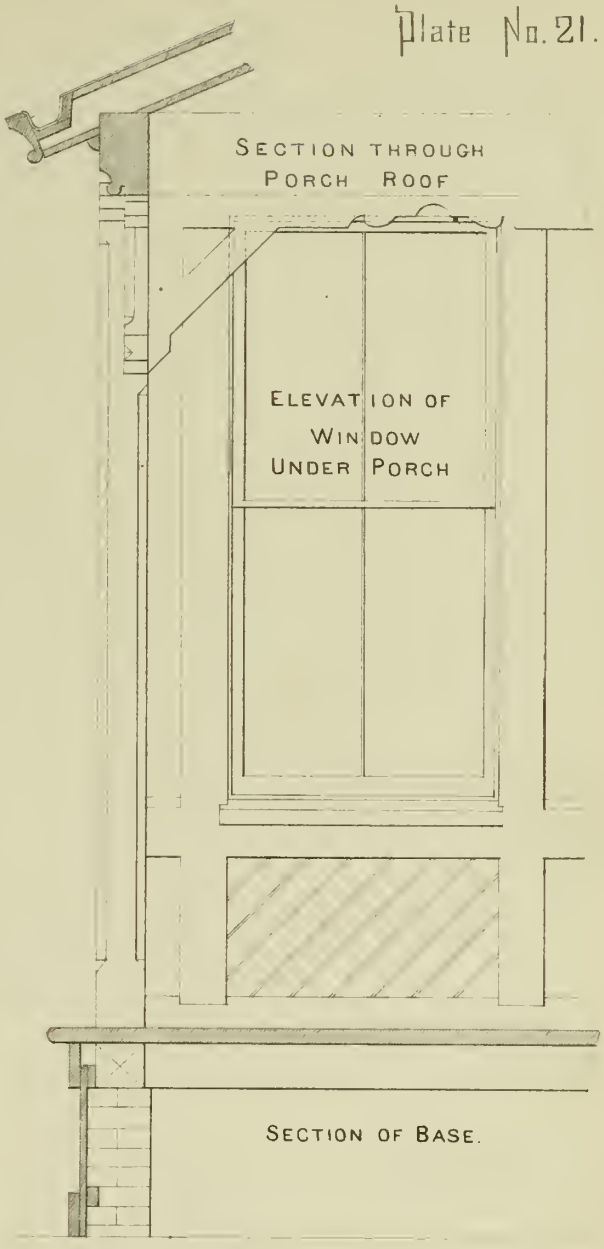
SCALE. 1/2 Inch to One Foot.

Design No. 5.

Plate No. 21.

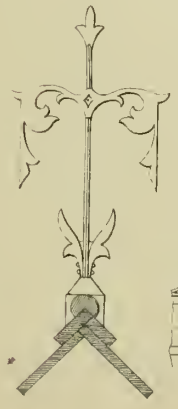


ELEVATION AND SECTION OF KITCHEN WINDOWS.

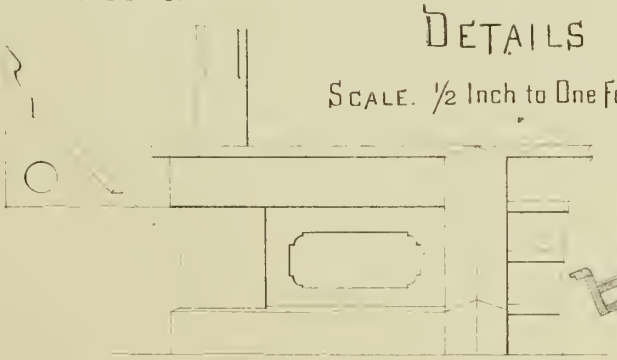


DETAILS

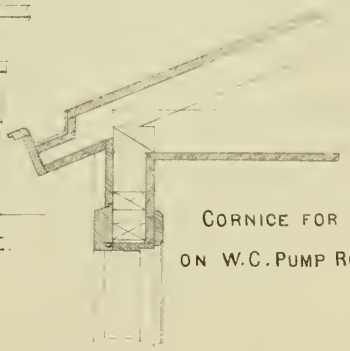
SCALE. ½ Inch to One Foot.



RIDGE CRESTING.



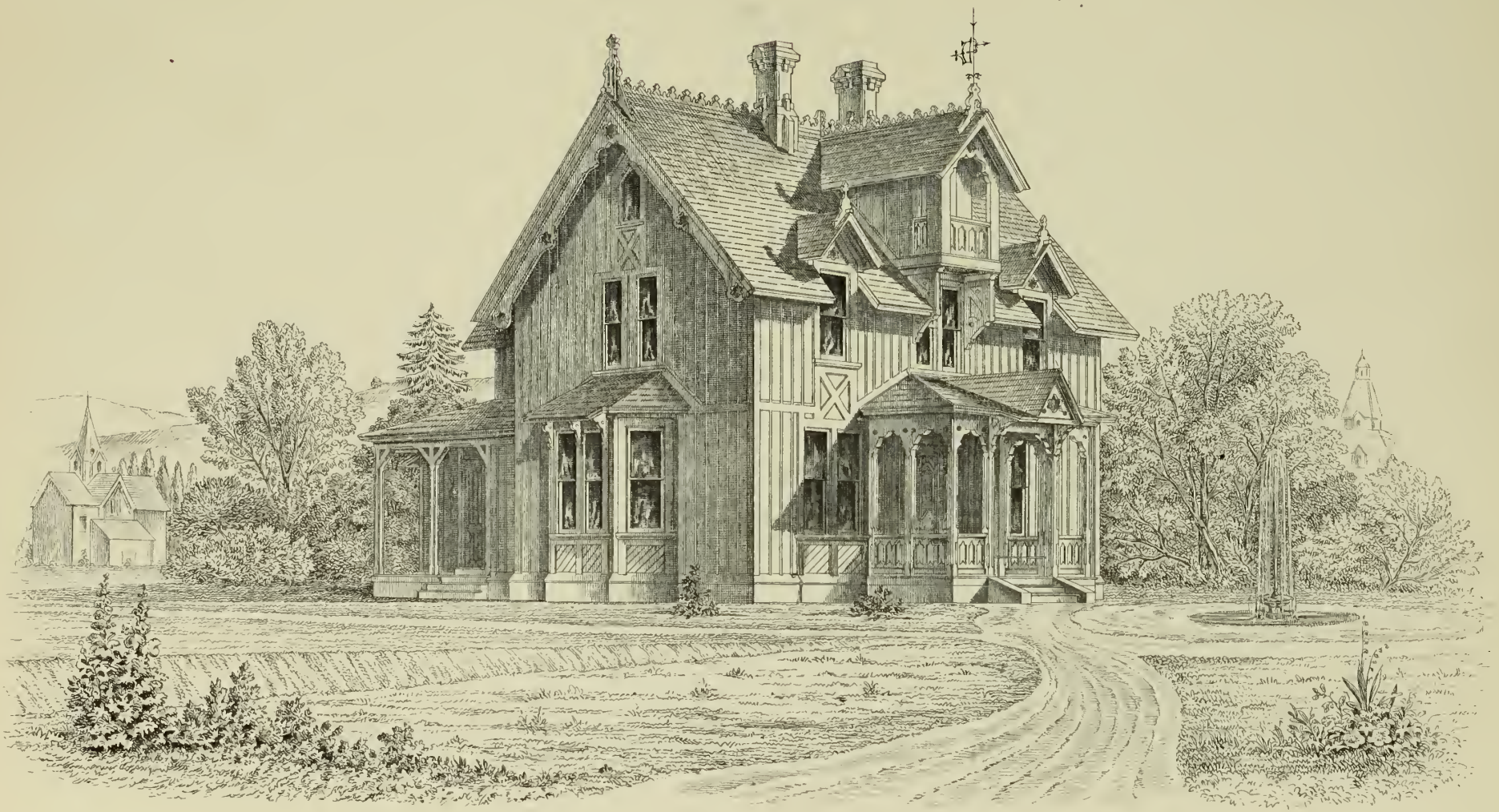
ELEVATION OF PORCH BASE.



CORNICE FOR ROOF ON W.C. PUMP ROOM etc.

Design No. 6

Plate No. 22.



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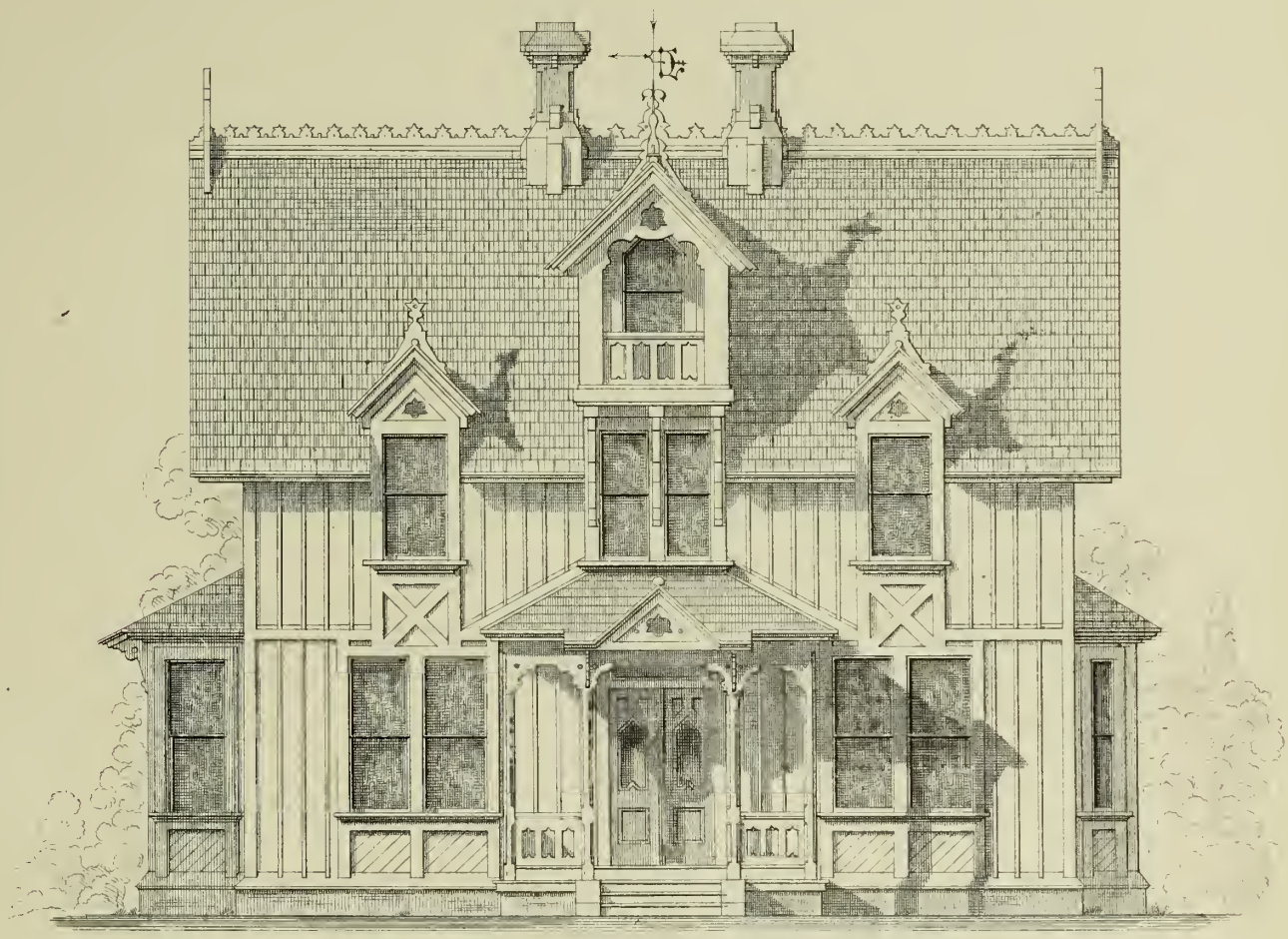
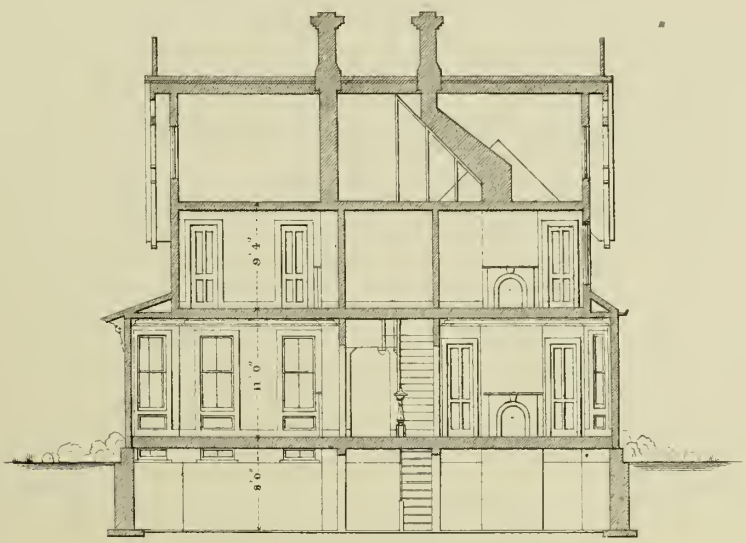
Design No. 6

Plate No. 23.



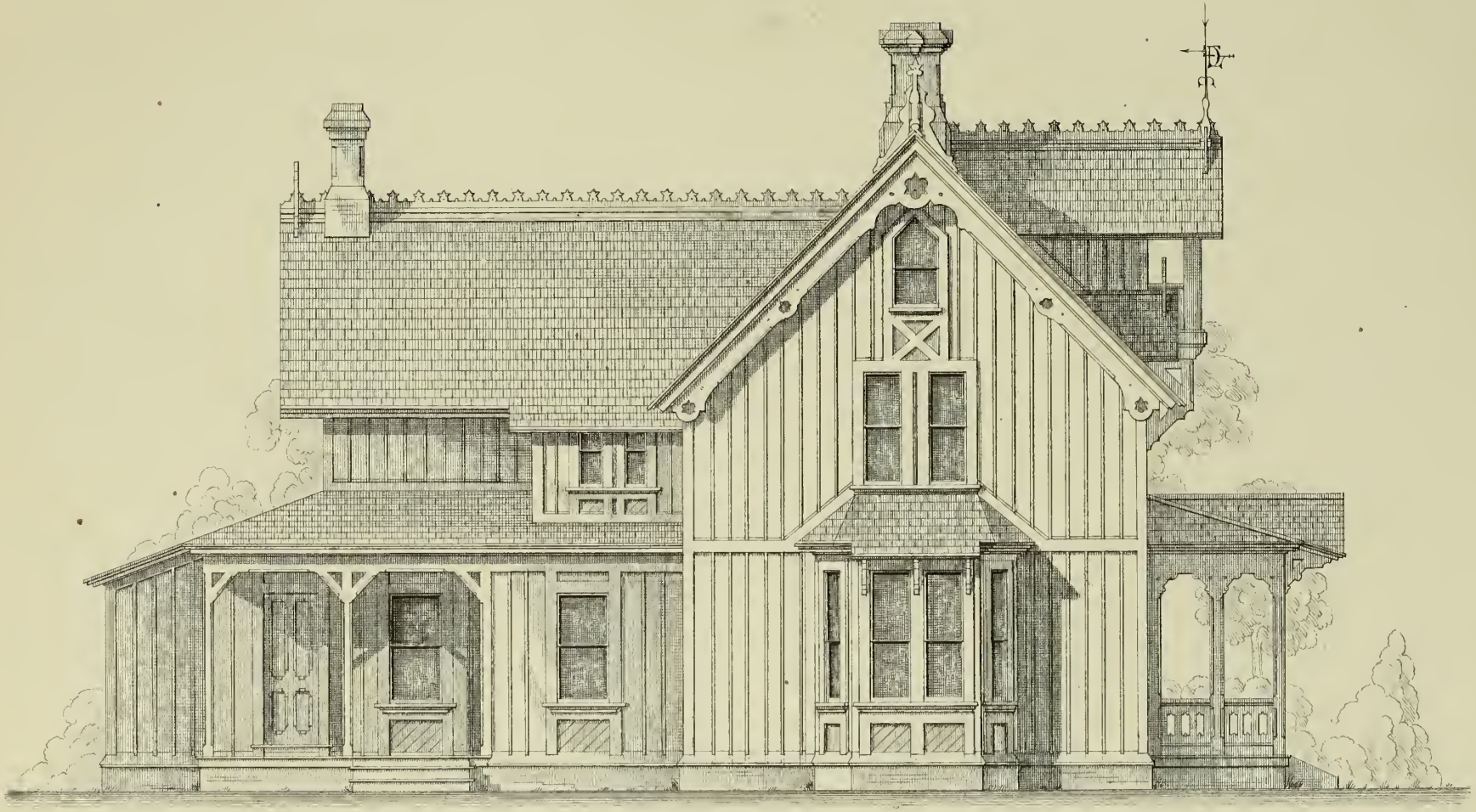
FRONT ELEVATION.
SCALE. 1/8 Inch to One Foot.



SECTION.
THROUGH LINE "A" "B".
SCALE. 1/16 Inch to One Foot.

Design No. 6

Plate No. 24.

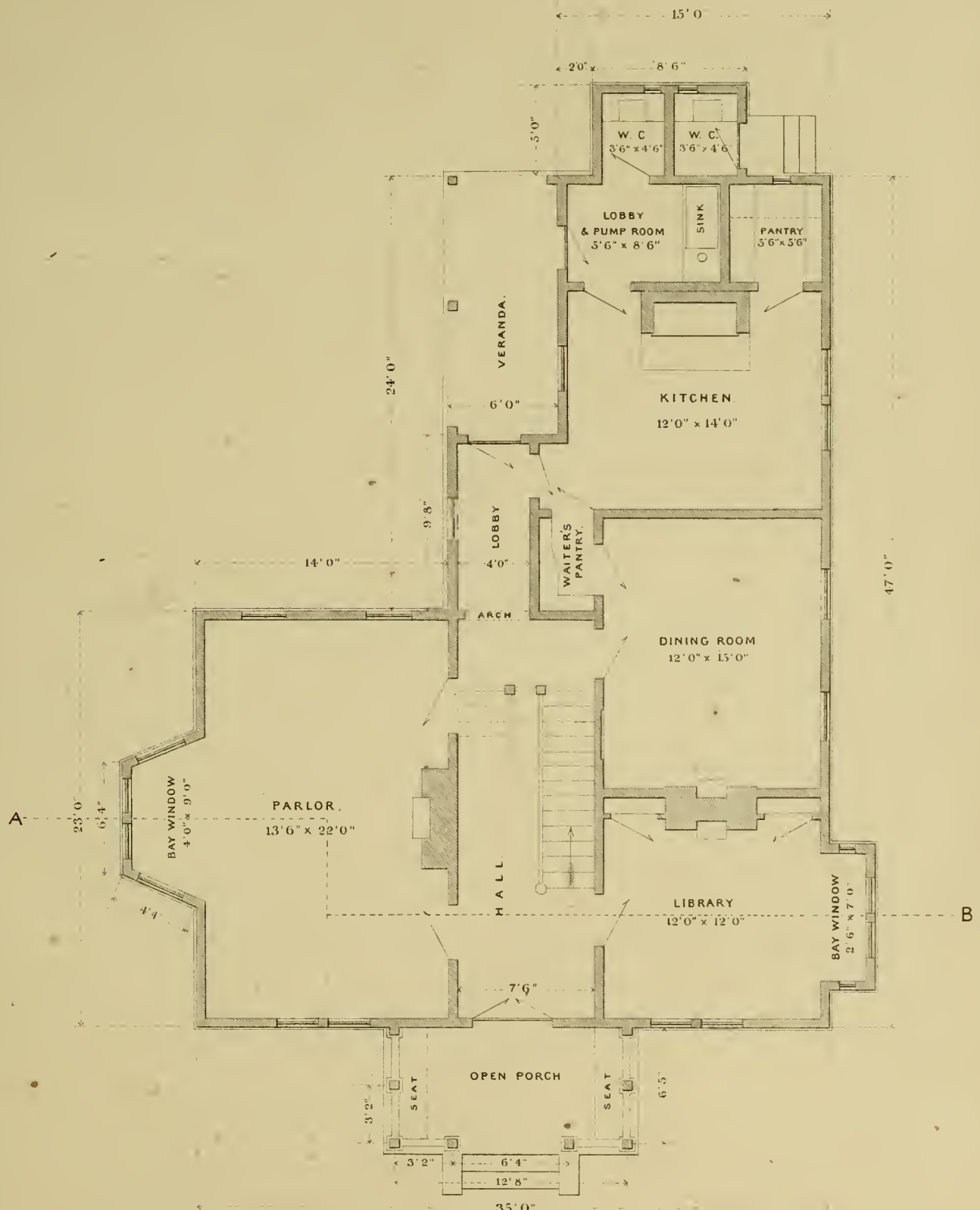


SIDE ELEVATION.

SCALE. ⅛ Inch to One Foot.

Design No. 6

Plate No. 25.

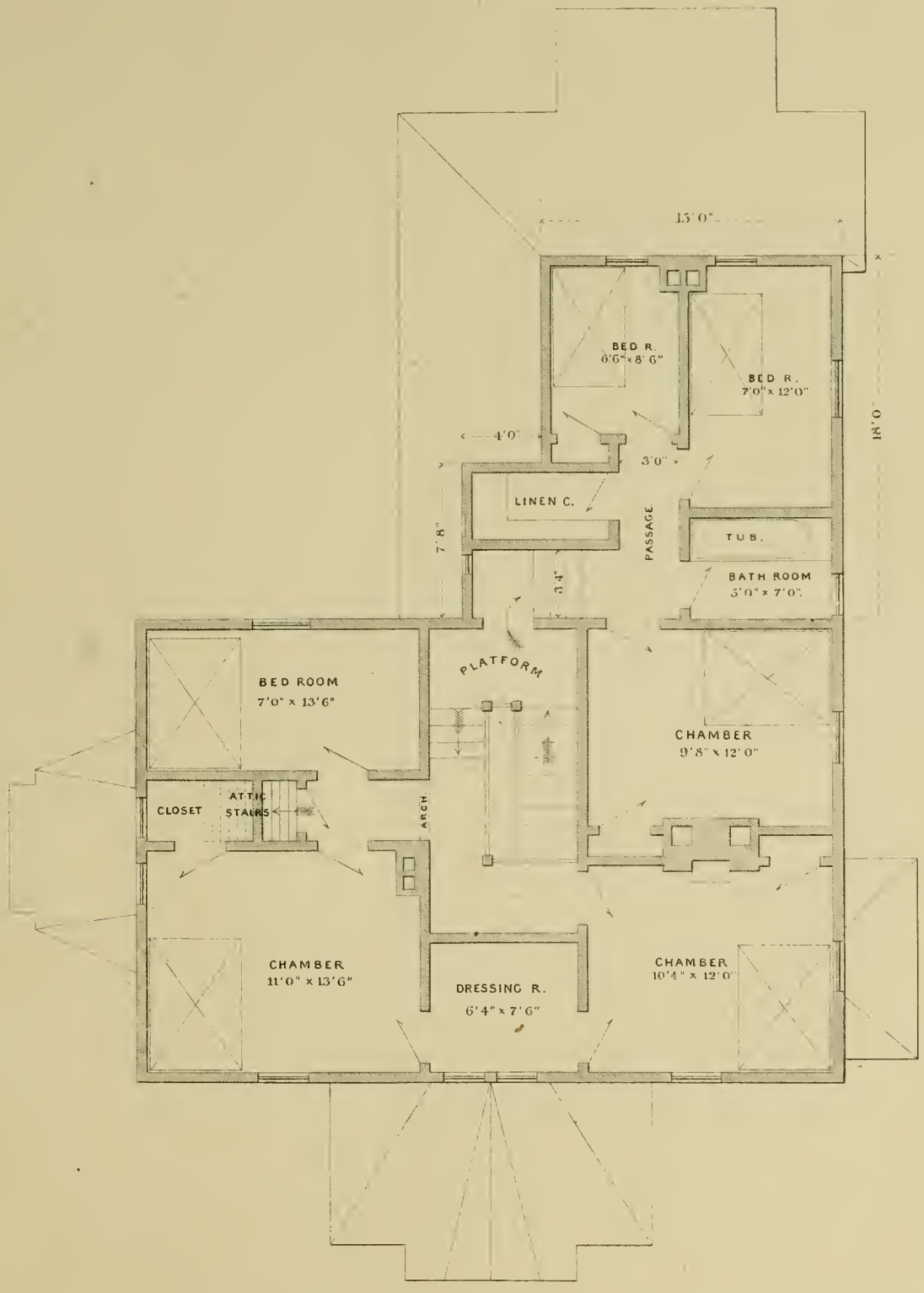


Ground Plan.

Scale. 1/8 Inch to One Foot

Design No. 6

Plate No. 26

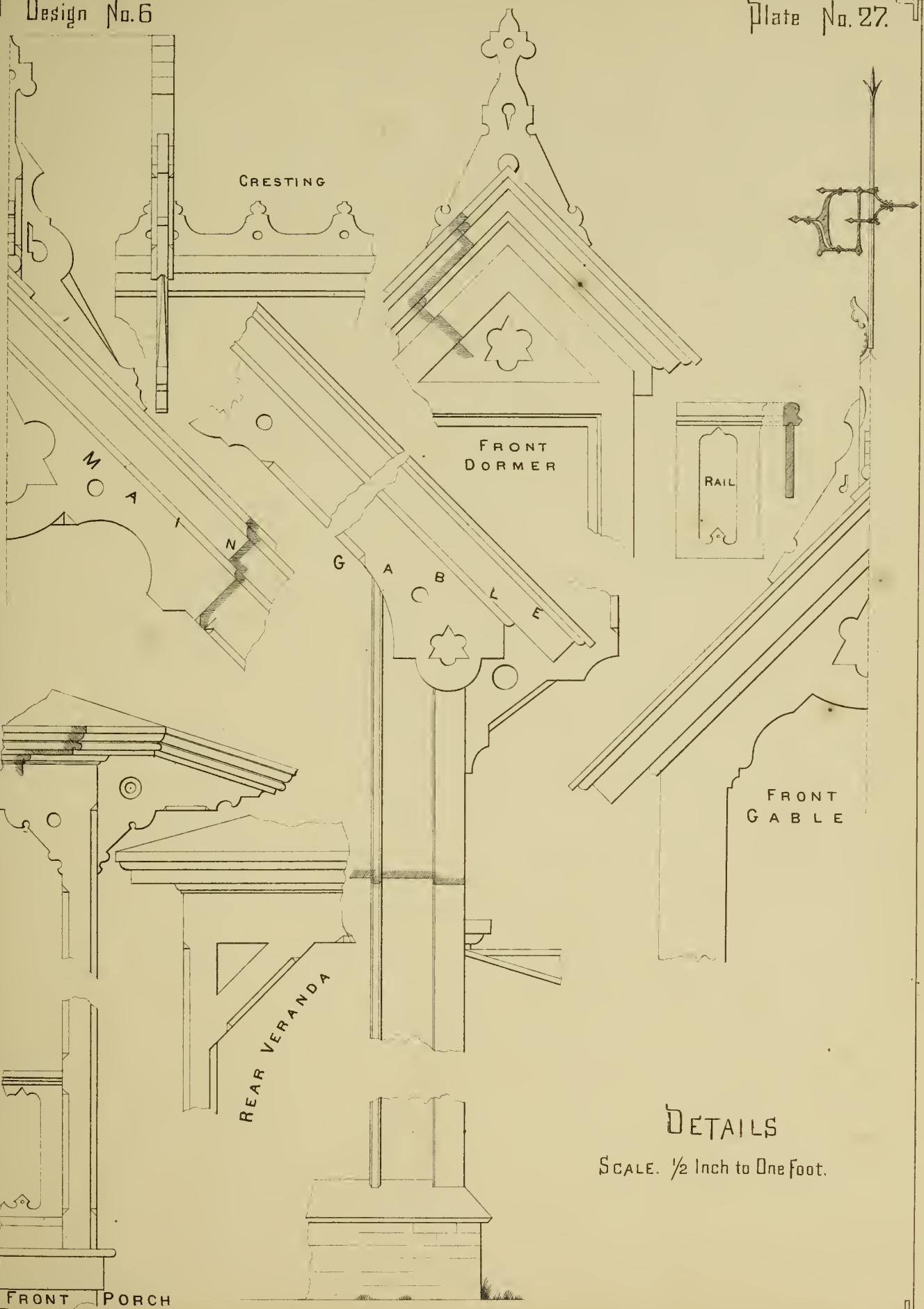


CHAMBER PLAN.

SCALE. ⅛ Inch to One Foot

Design No. 6

Plate No. 27.



Details

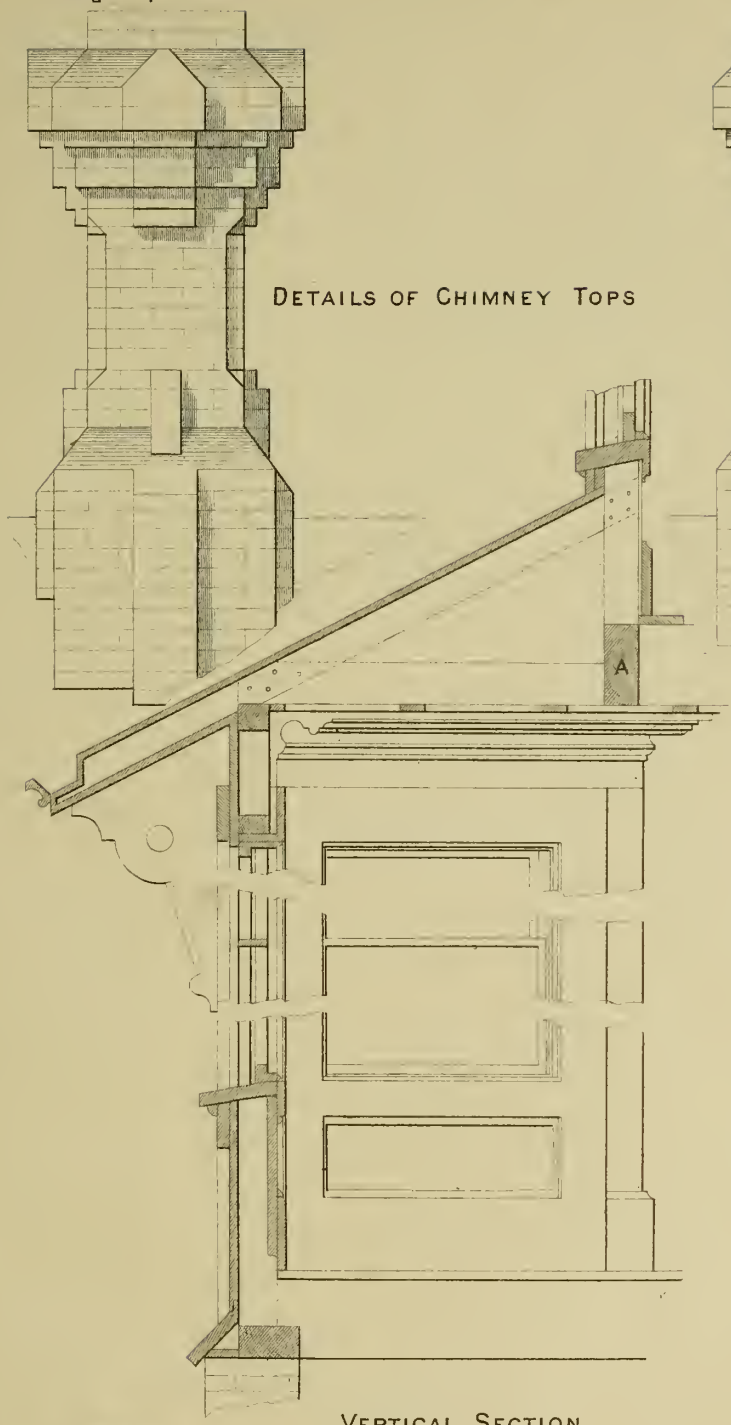
Scale. ½ Inch to One Foot.

Design No. 6

Plate No. 28.

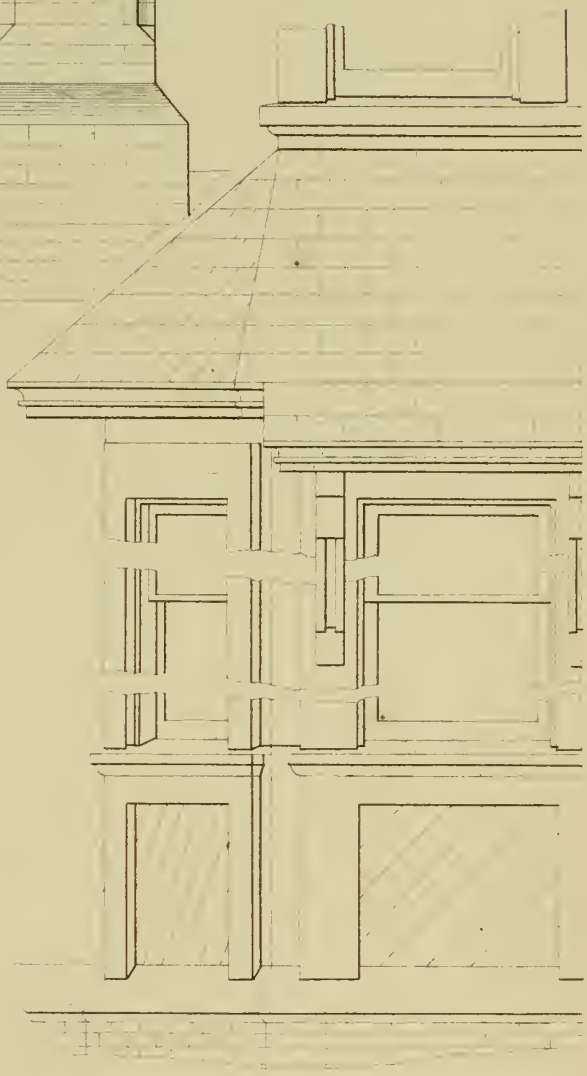
Details

½ Inch to One Foot.



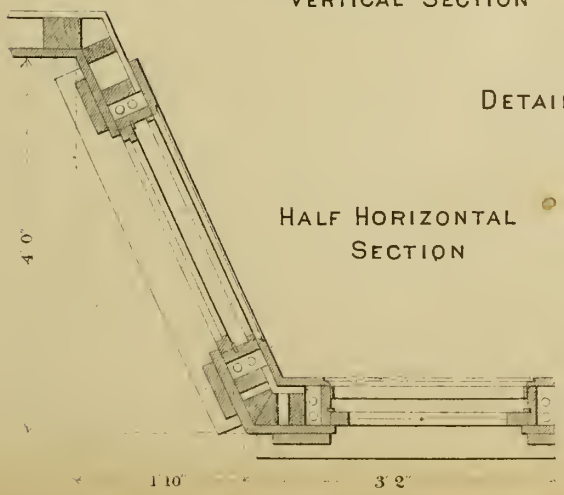
Details of Chimney Tops

Vertical Section

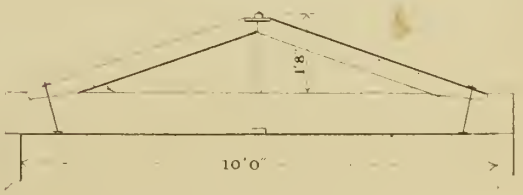


Half Front Elevation

Details of Parlor Bay Window



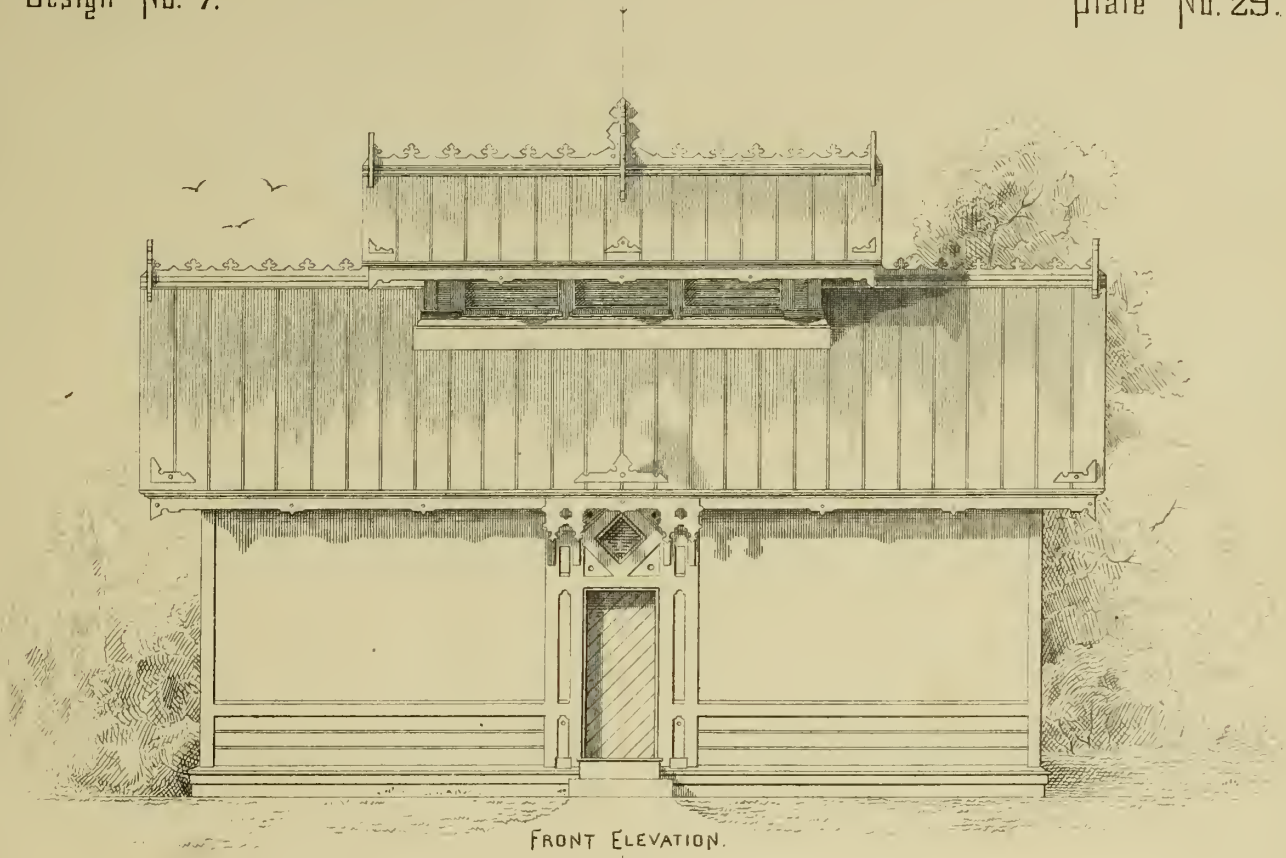
Half Horizontal Section



Trussed Girder over Bay Window at A

Design No. 7.

Plate No. 29.



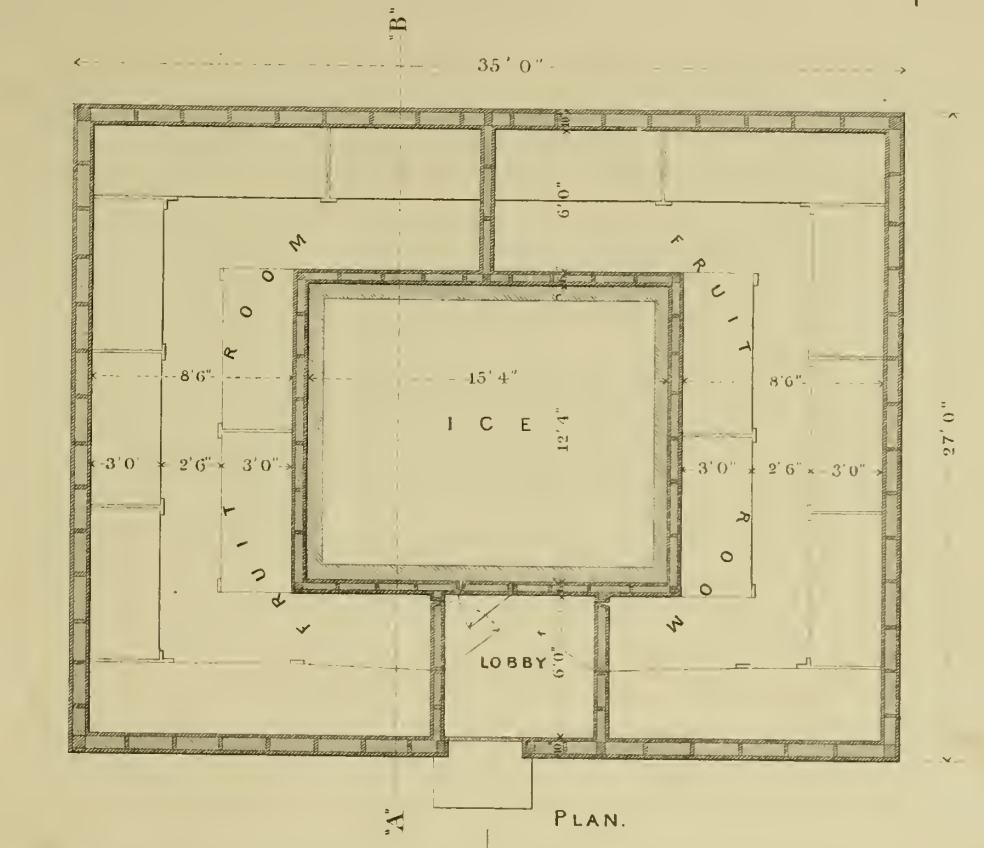
FRONT ELEVATION.

SIDE ELEVATION.

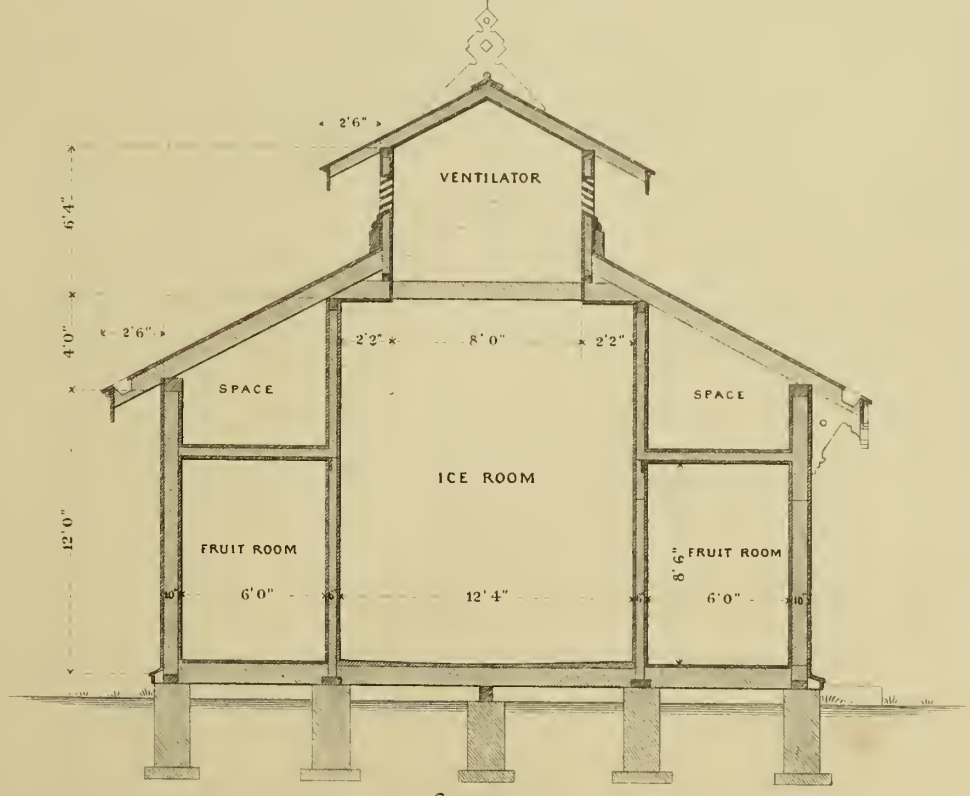
SCALE. ⅛ Inch to One Foot

Design No. 7.

Plate No. 30.



PLAN.

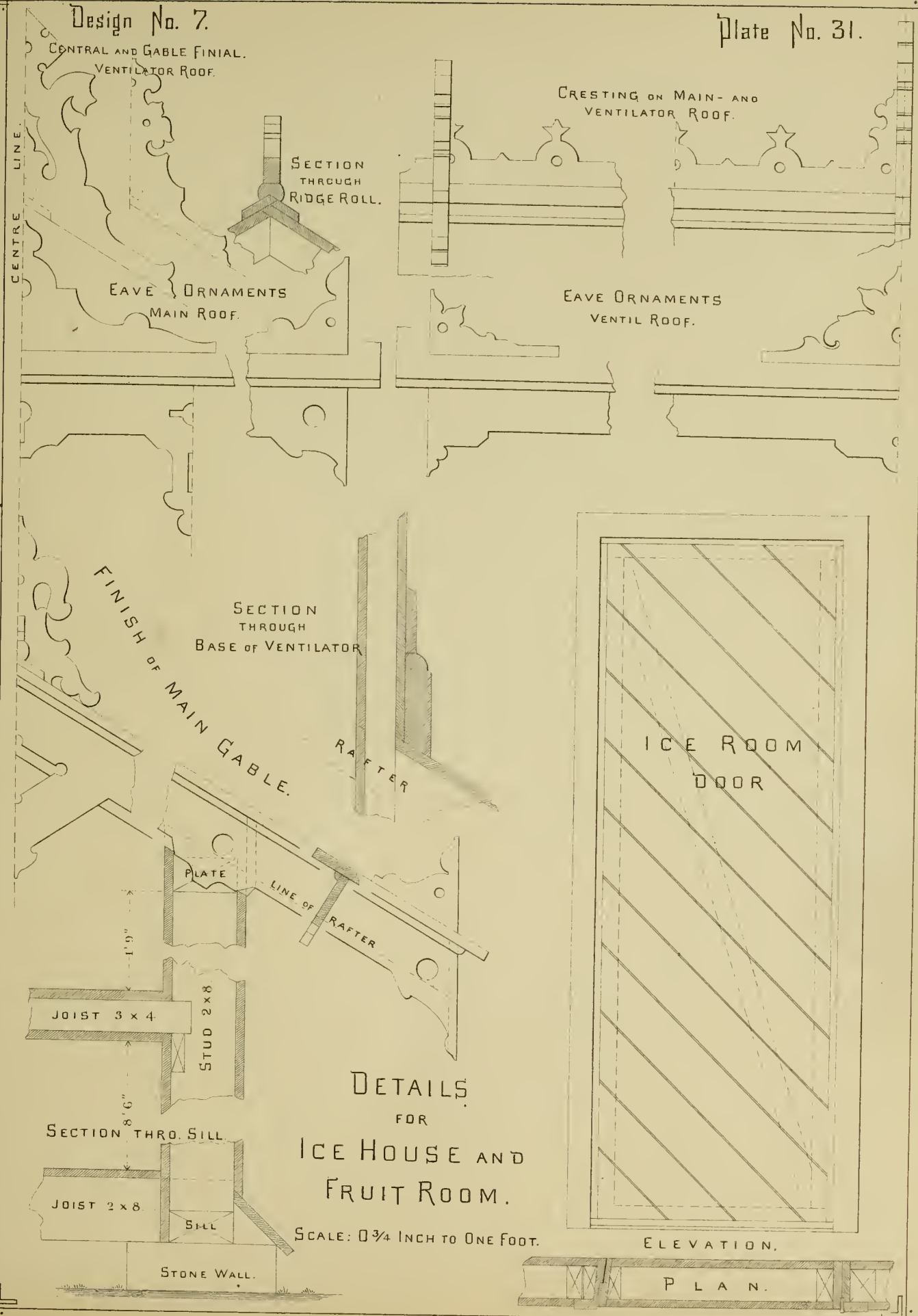


SECTION.
THROUGH LINE "A" "B"

SCALE. 1/8 Inch to One Foot

Design No. 7.

Plate No. 31.

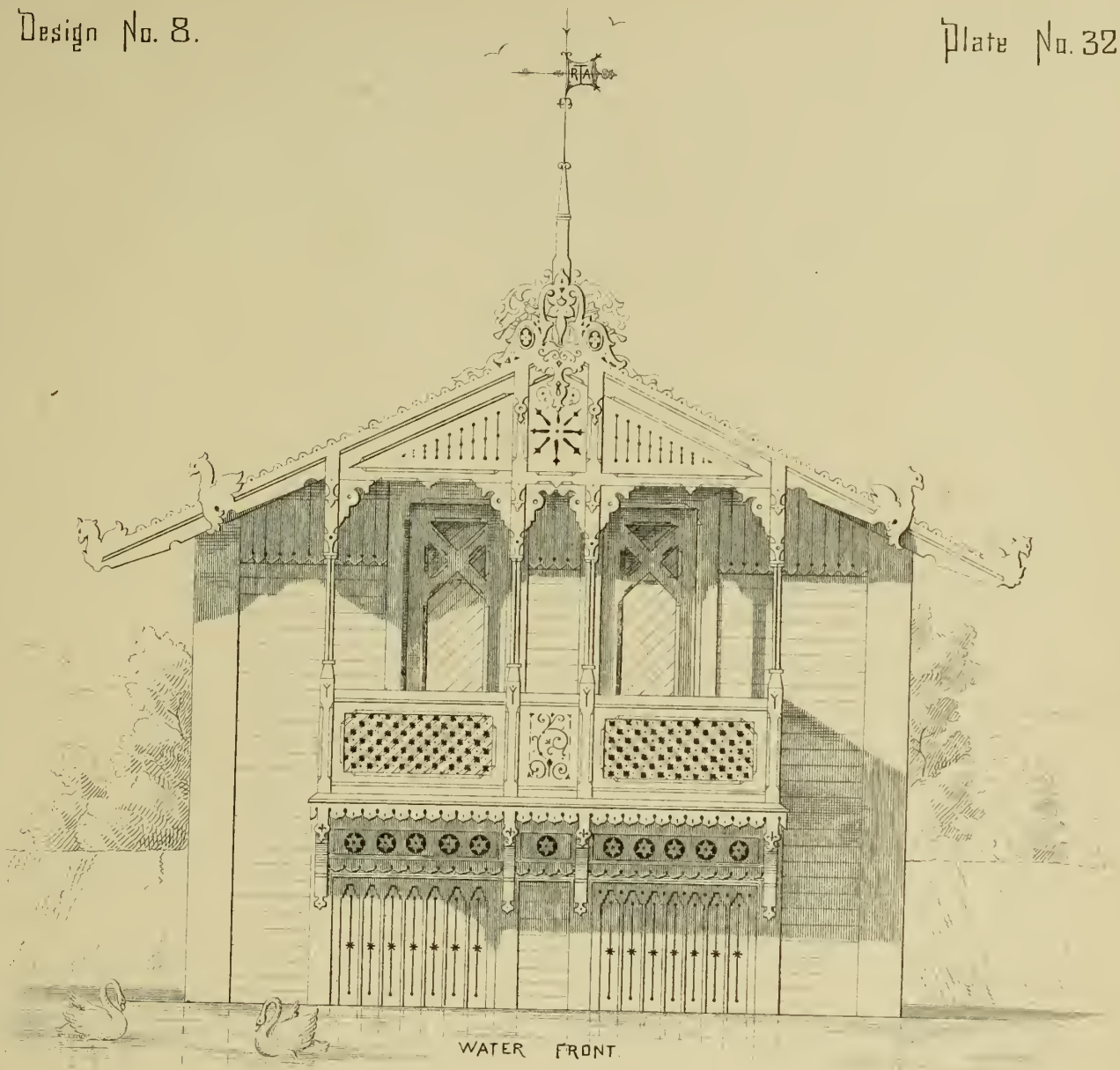


Details for Ice House and Fruit Room.

Scale: 0 3/4 Inch to One Foot.

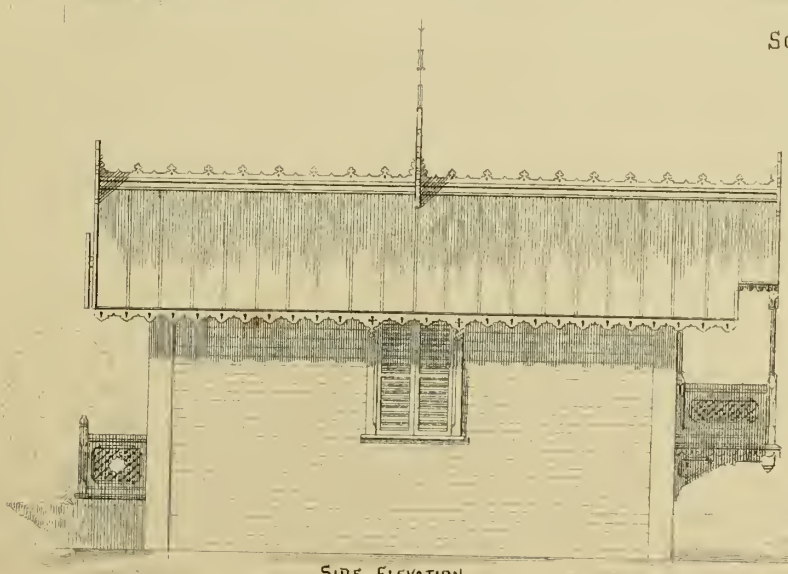
Design No. 8.

Plate No. 32.



WATER FRONT.

SCALE. 1/8 Inch to One Foot

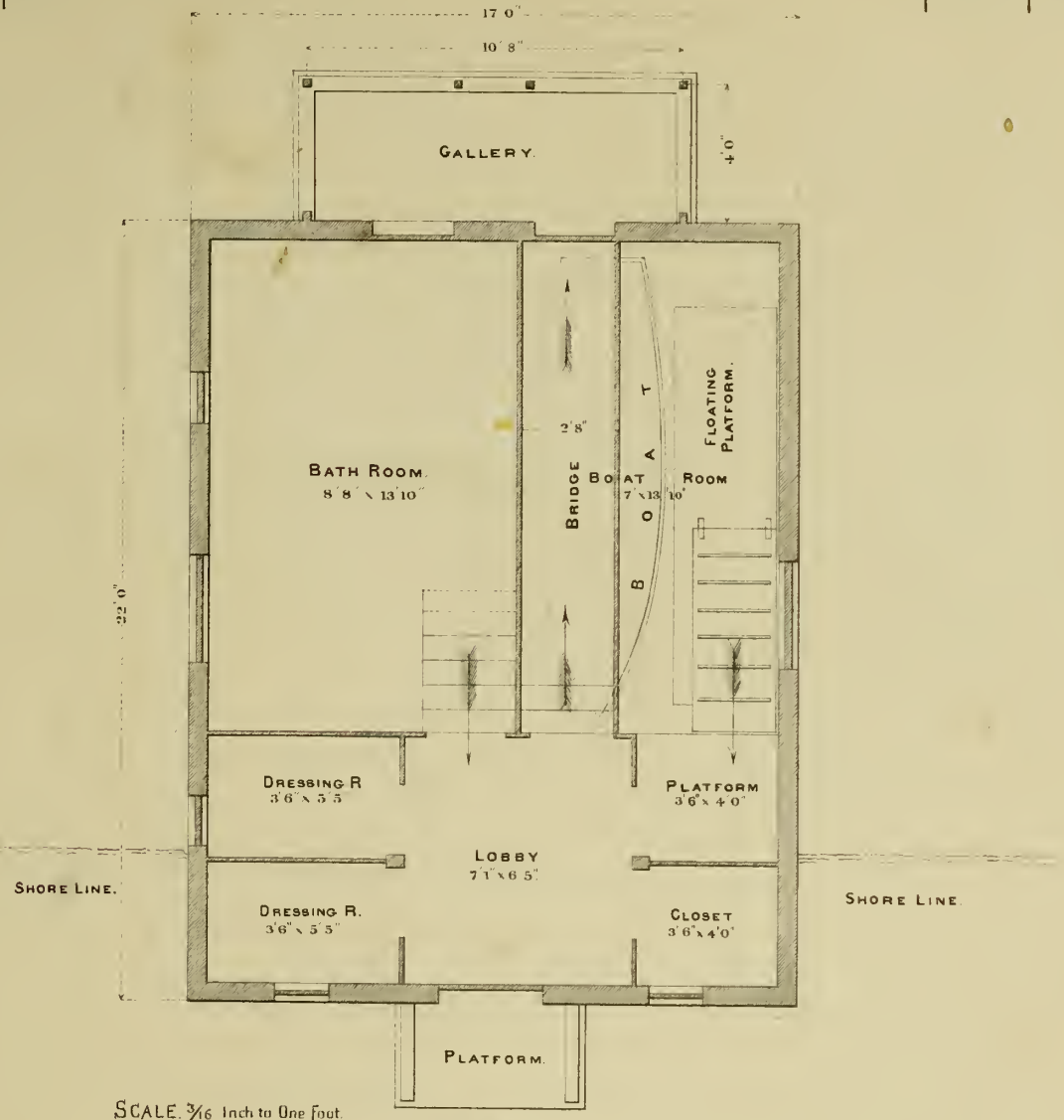


SIDE ELEVATION.

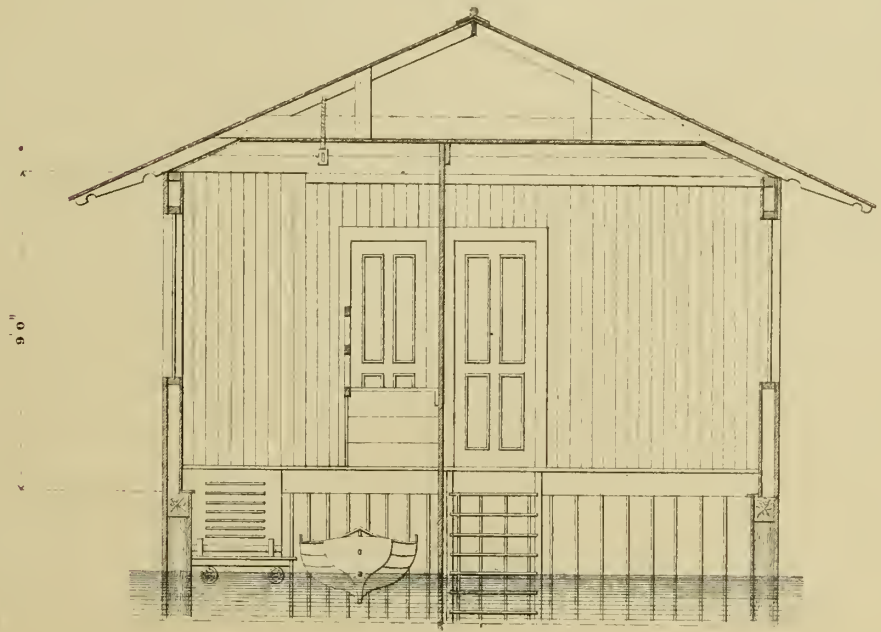
SCALE. 1/16 Inch to One Foot.

Design No. 8.

Plate No. 33.

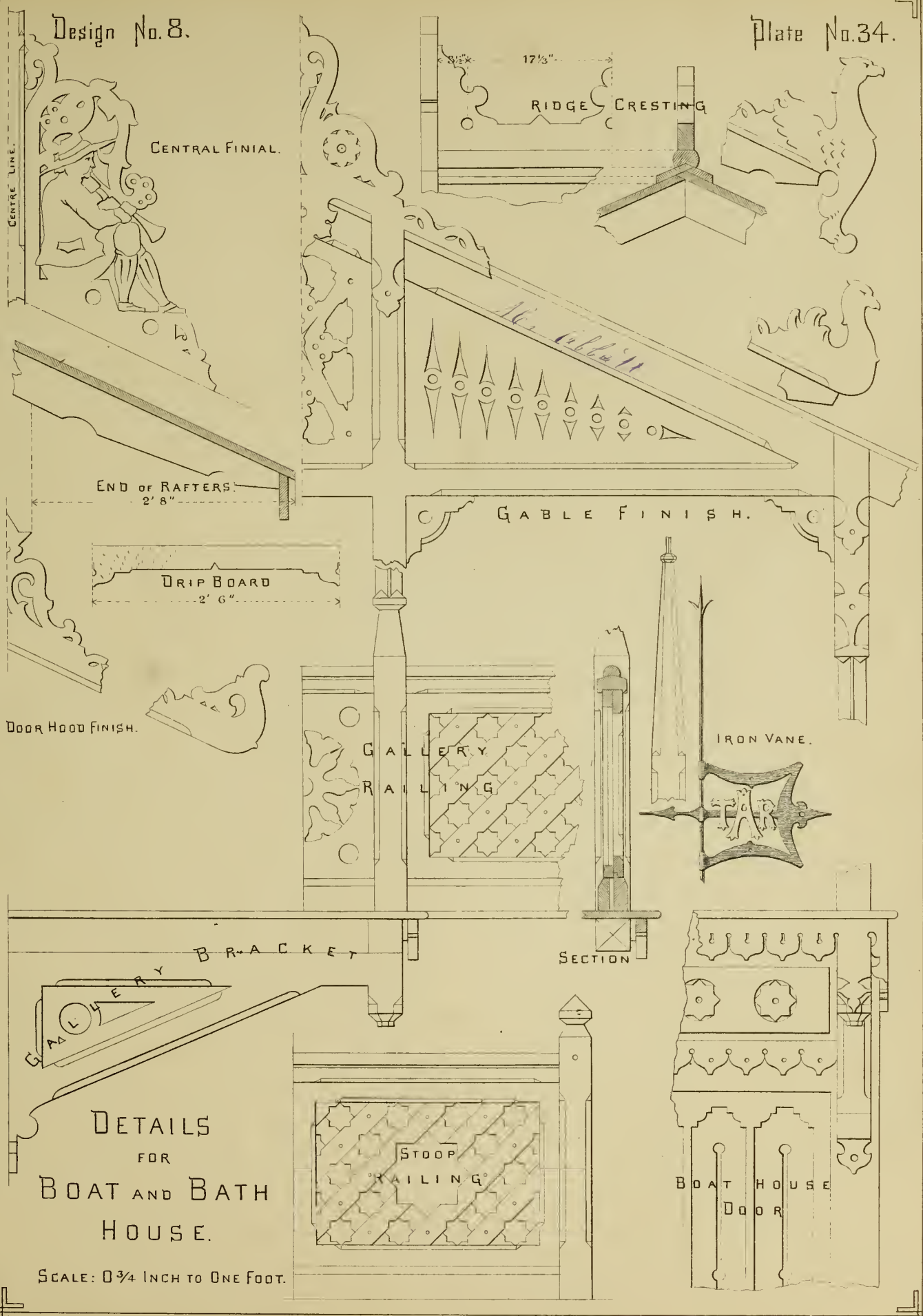


SCALE. 3/16 Inch to One Foot.



Design No. 8.

Plate No. 34.



DETAILS FOR BOAT AND BATH HOUSE.

SCALE: 0 3/4 INCH TO ONE FOOT.

Design No. 9.

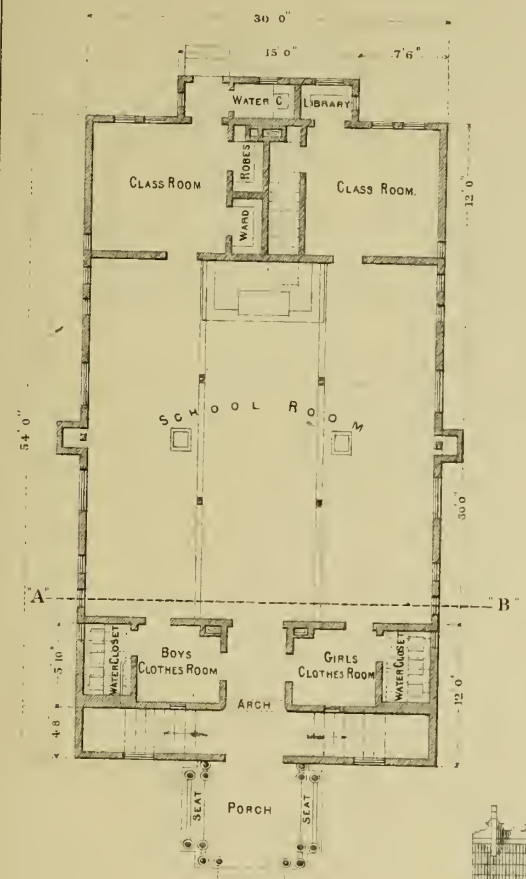
Plate No. 35.

Engr & print by KORFF BROTHERS 54 William St N.Y.

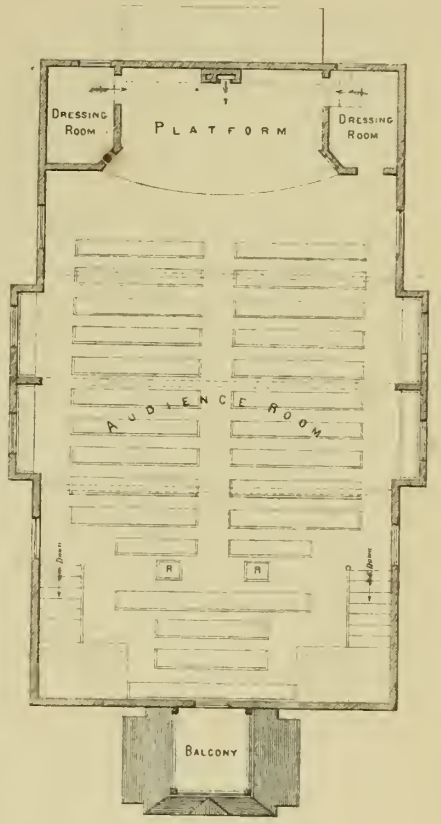
Design No. 9.

Plate No. 36

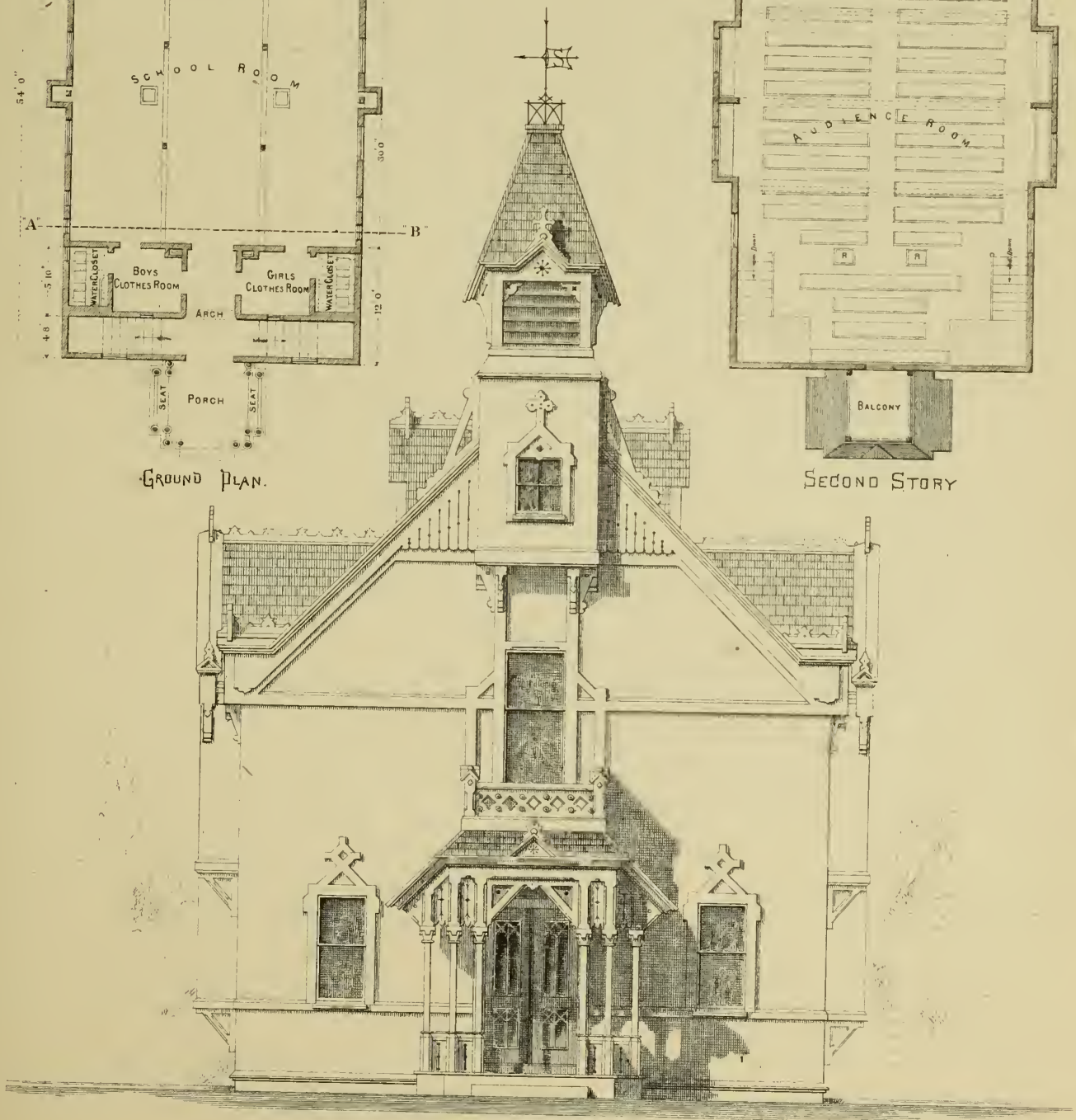
SCALE. 1/16 Inch to One Foot.



GROUND PLAN.



SECOND STORY

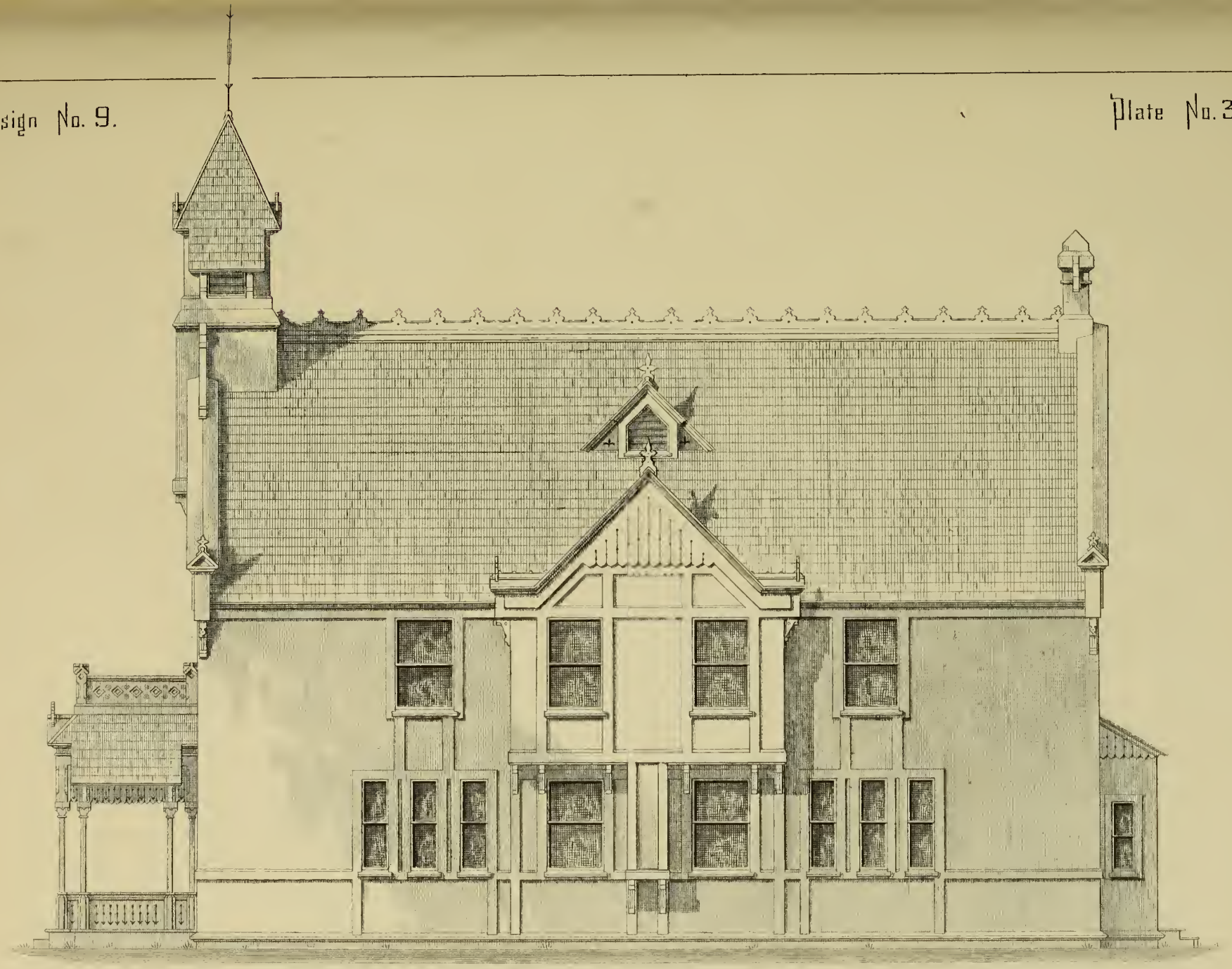


— FRONT ELEVATION. —

SCALE. 1/8 Inch to One Foot

Design No. 9.

Plate No. 37.

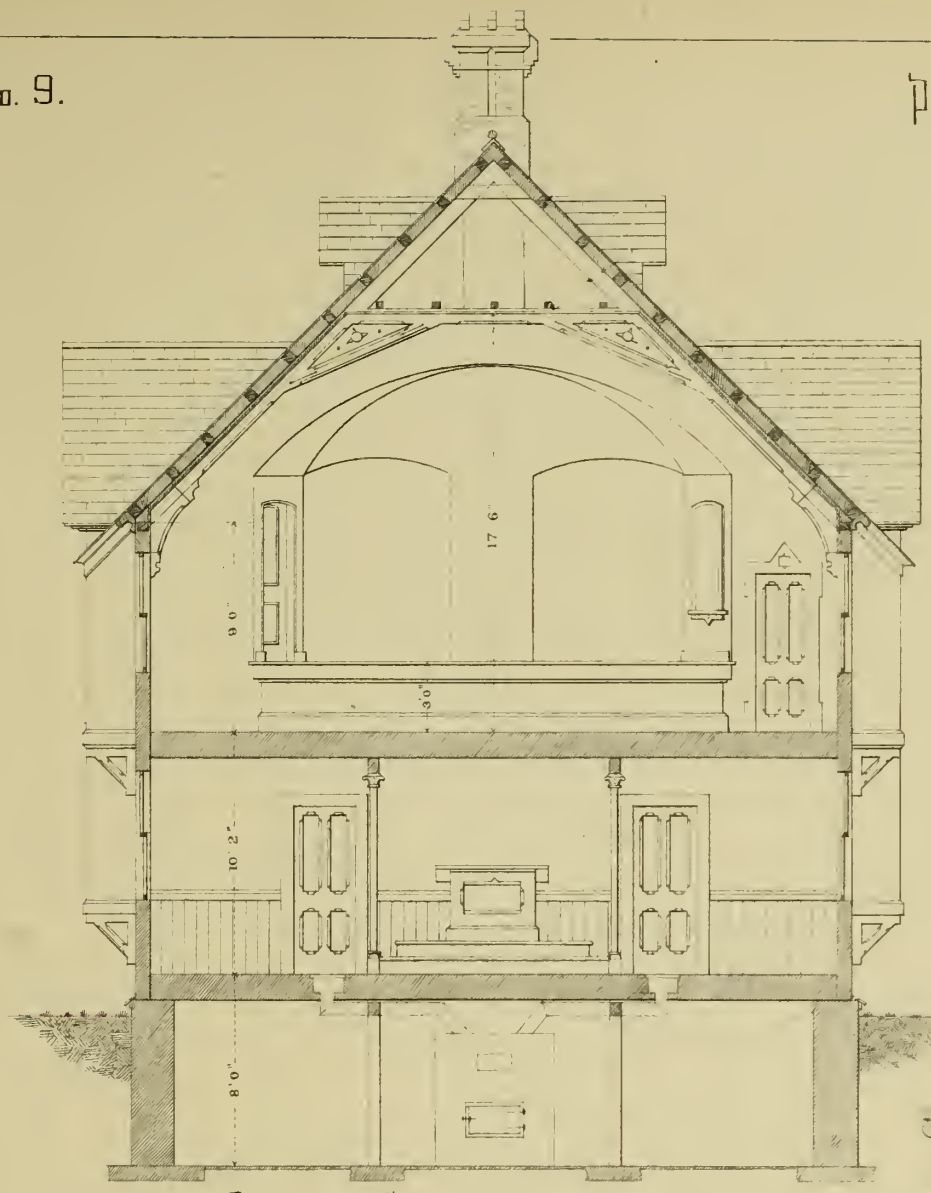


SIDE ELEVATION

SCALE. 1/8 Inch to One Foot.

Design No. 9.

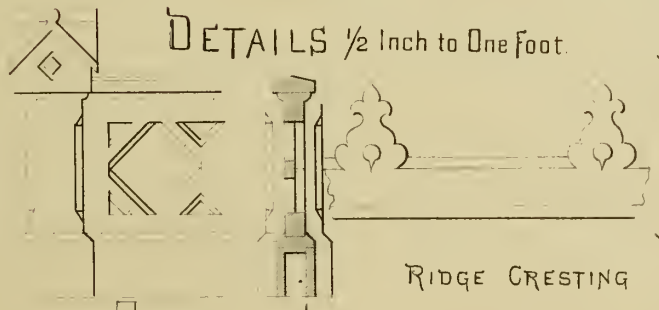
Plate No. 38.



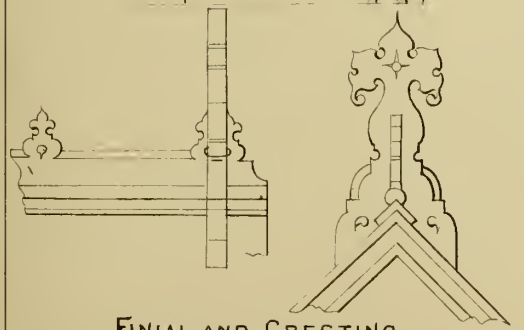
TRANSVERSE SECTION THROUGH LINE "A" "B"

SCALE. 1/8 Inch to One Foot.

DETAILS 1/2 Inch to One Foot.

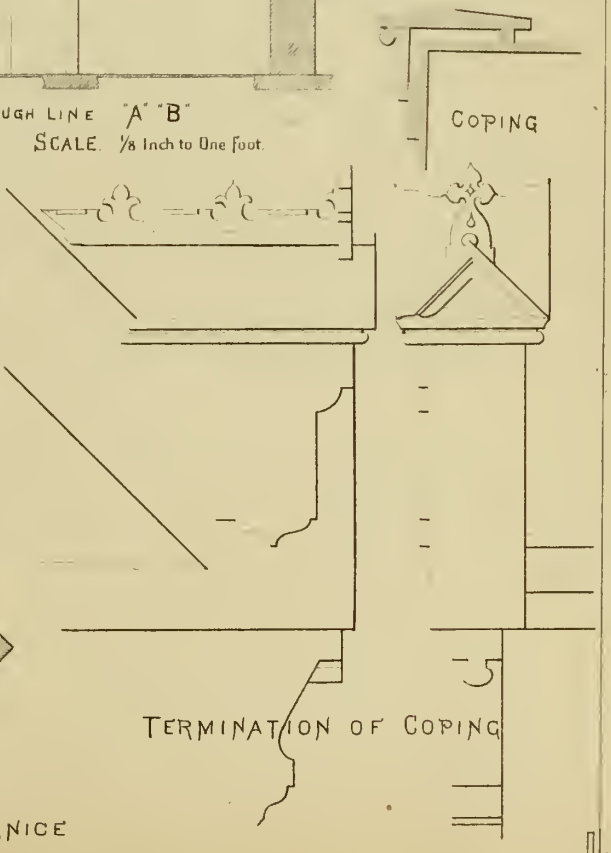


RIDGE CRESTING



FINIAL AND CRESTING TO GABLES

EAVE CORNICE



COPING

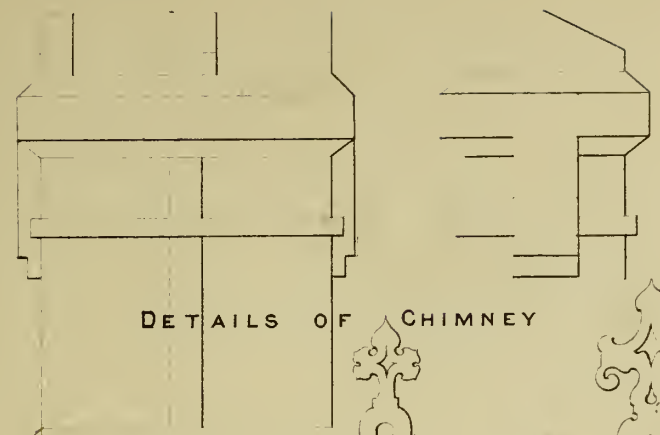
TERMINATION OF COPING

Design No. 9.

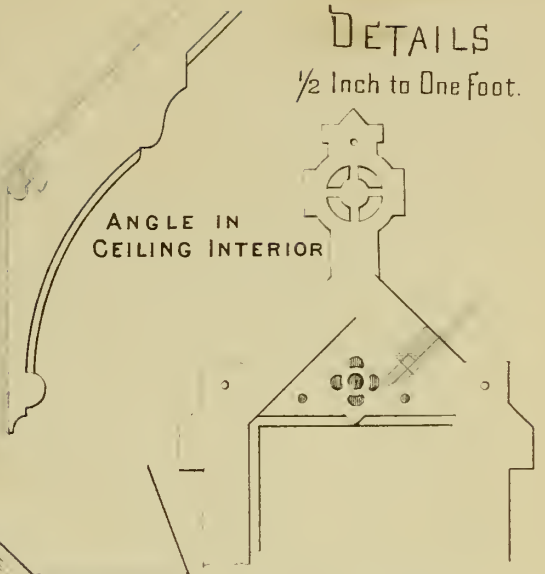
Plate No. 39.

DETAILS

½ Inch to One Foot.

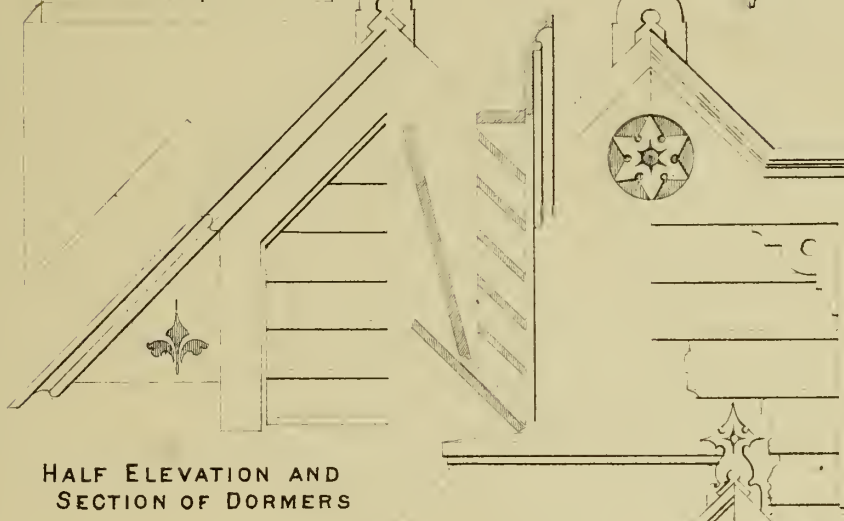


DETAILS OF CHIMNEY



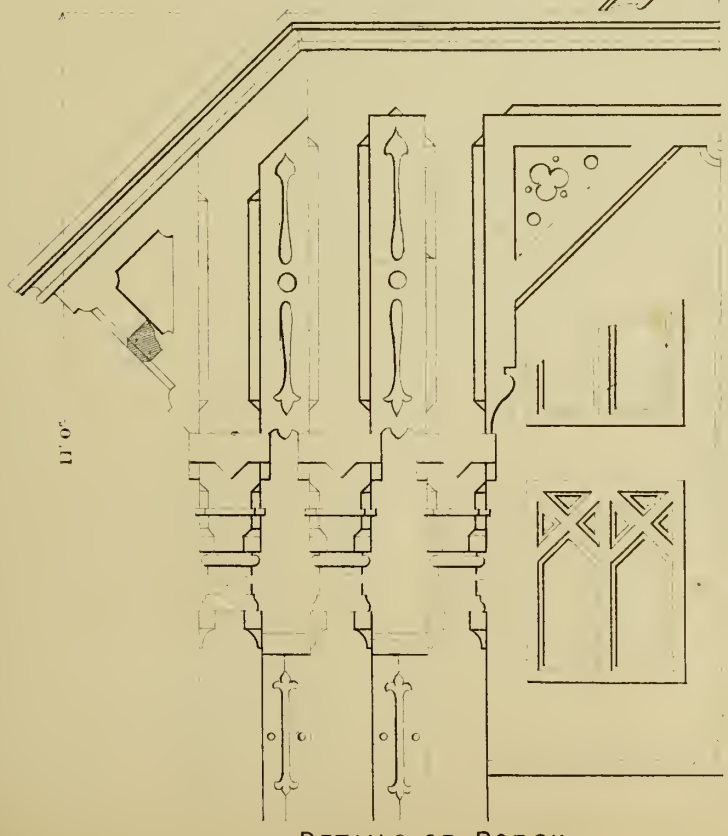
ANGLE IN CEILING INTERIOR

WINDOW IN BASE OF BELFRY

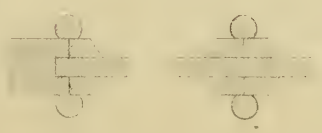


HALF ELEVATION AND SECTION OF DORMERS

HALF SECTION OF BELFRY



DETAILS OF PORCH



MOULDINGS &C. PRINCIPAL DOOR
18TH FULL SIZE

Design No. 10.

Plate No. 40.

Design No. 10.

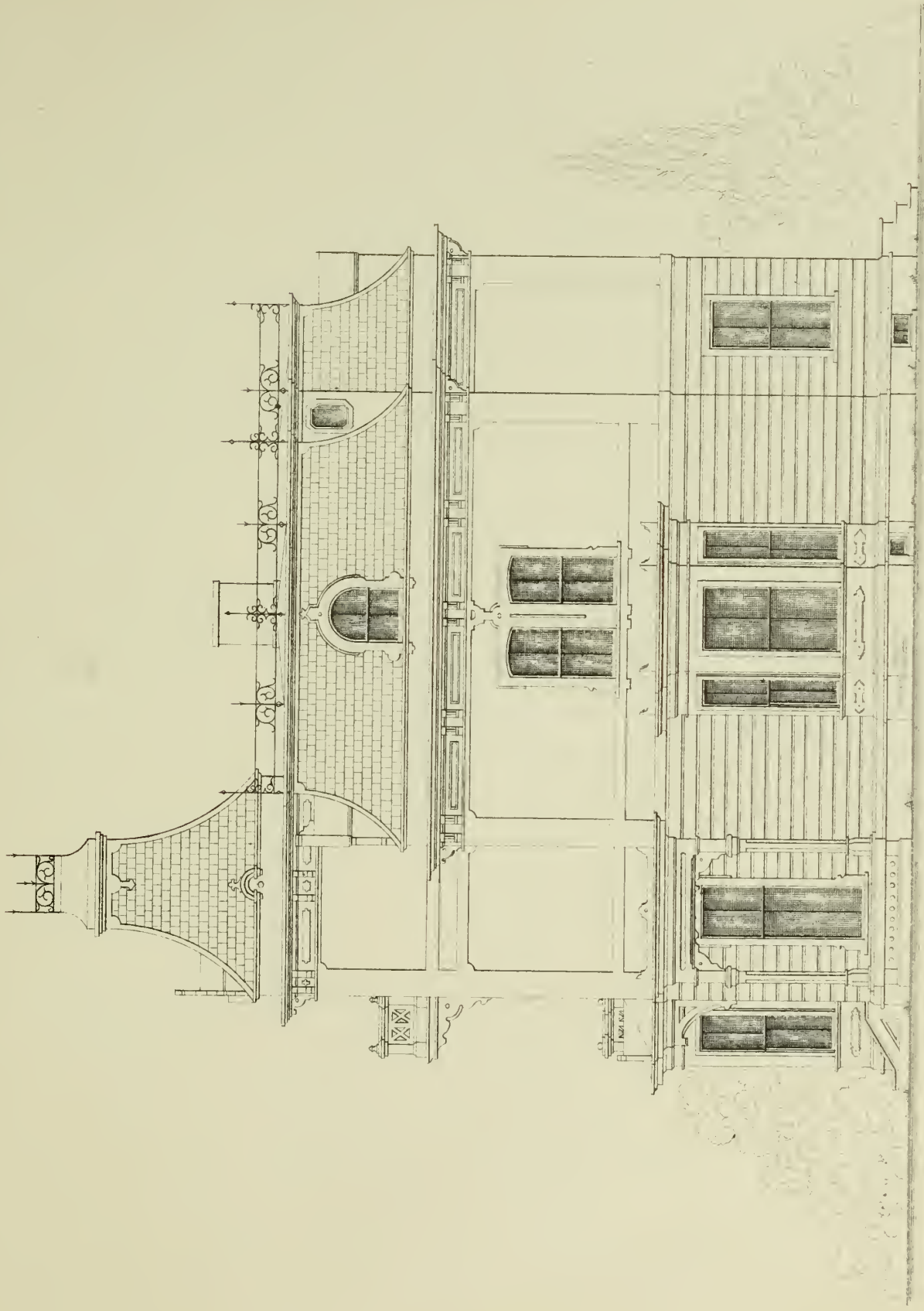
Plate No. 41.

FRONT ELEVATION.

SCALE 1/8 Inch to One Foot

Design No. 10.

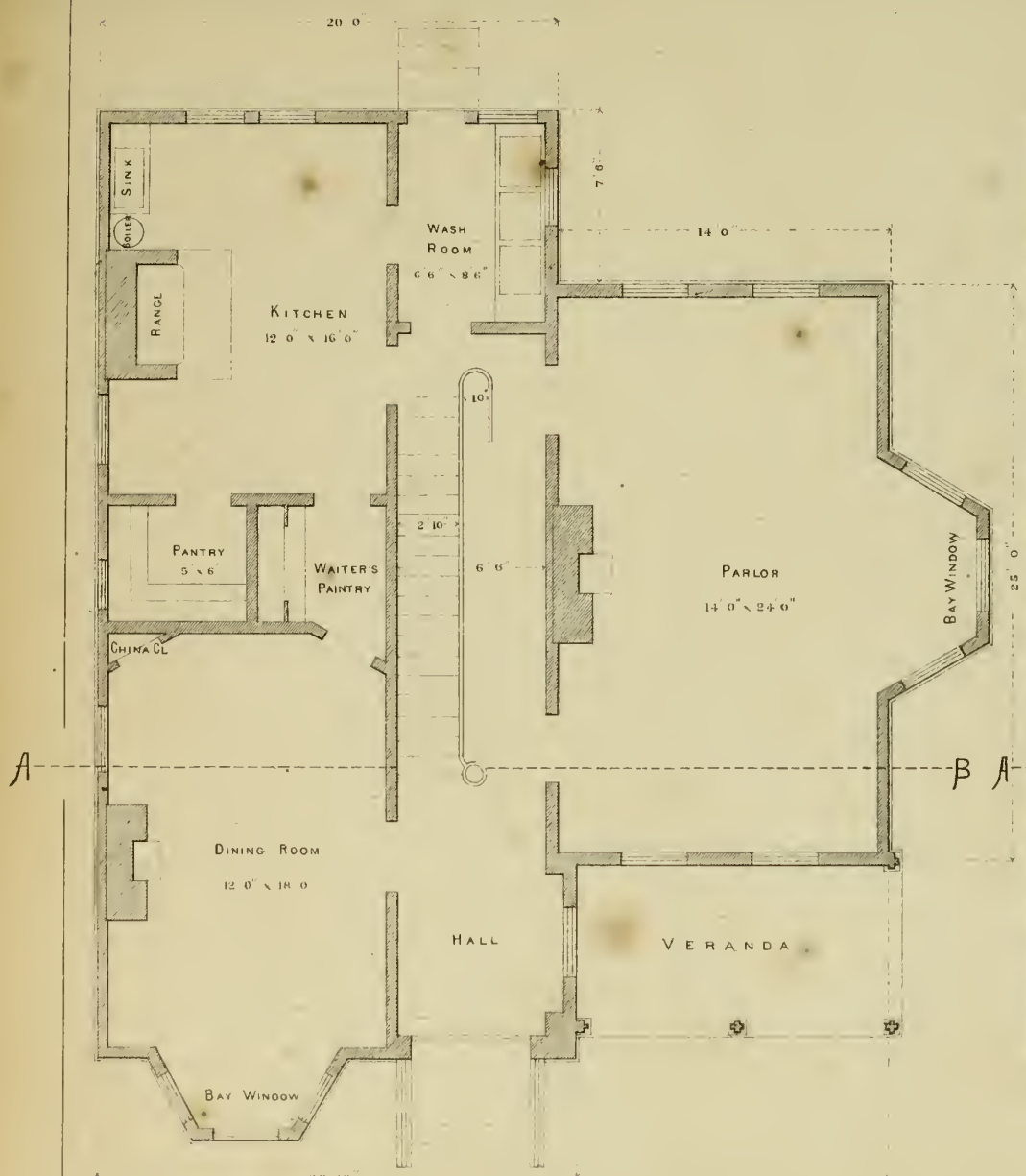
Plate No. 42.



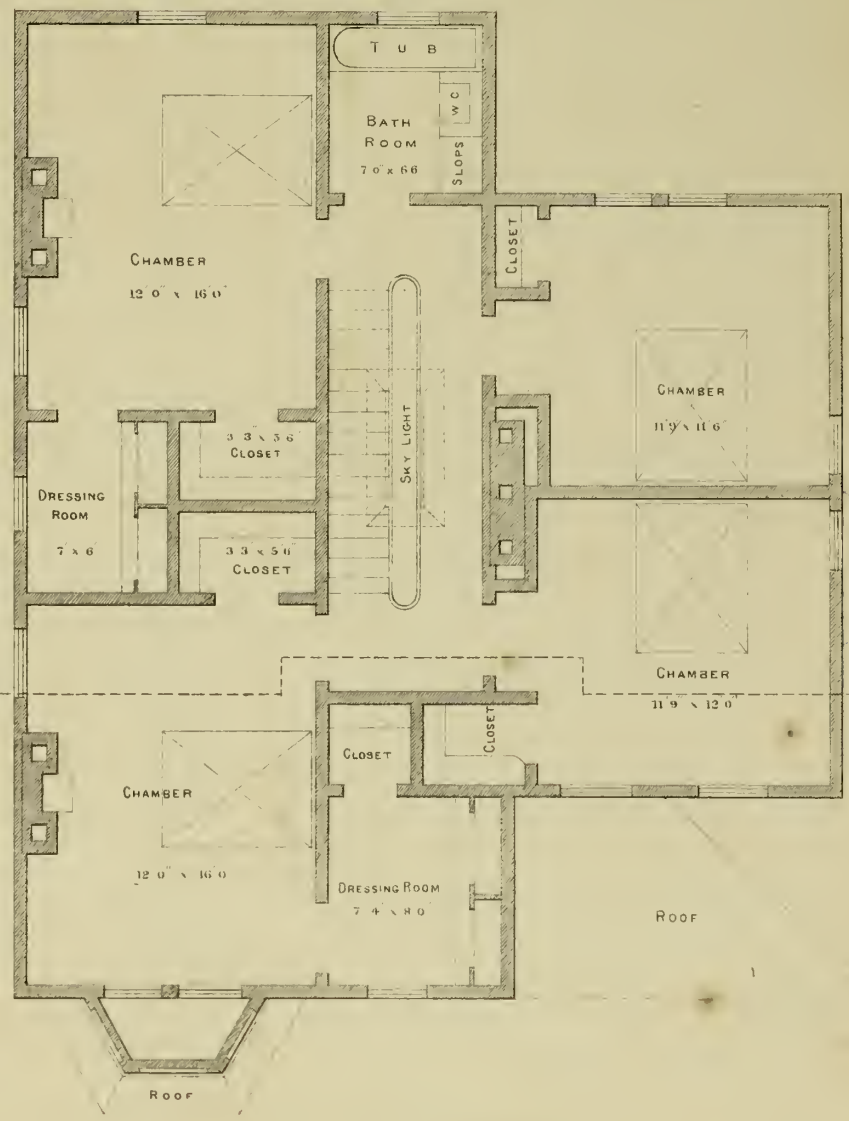
SIDE ELEVATION.

SCALE ⅛ Inch to One Foot

Design No. 10.



Ground Plan.



Chamber Plan

SCALE 1/8 Inch to One Foot

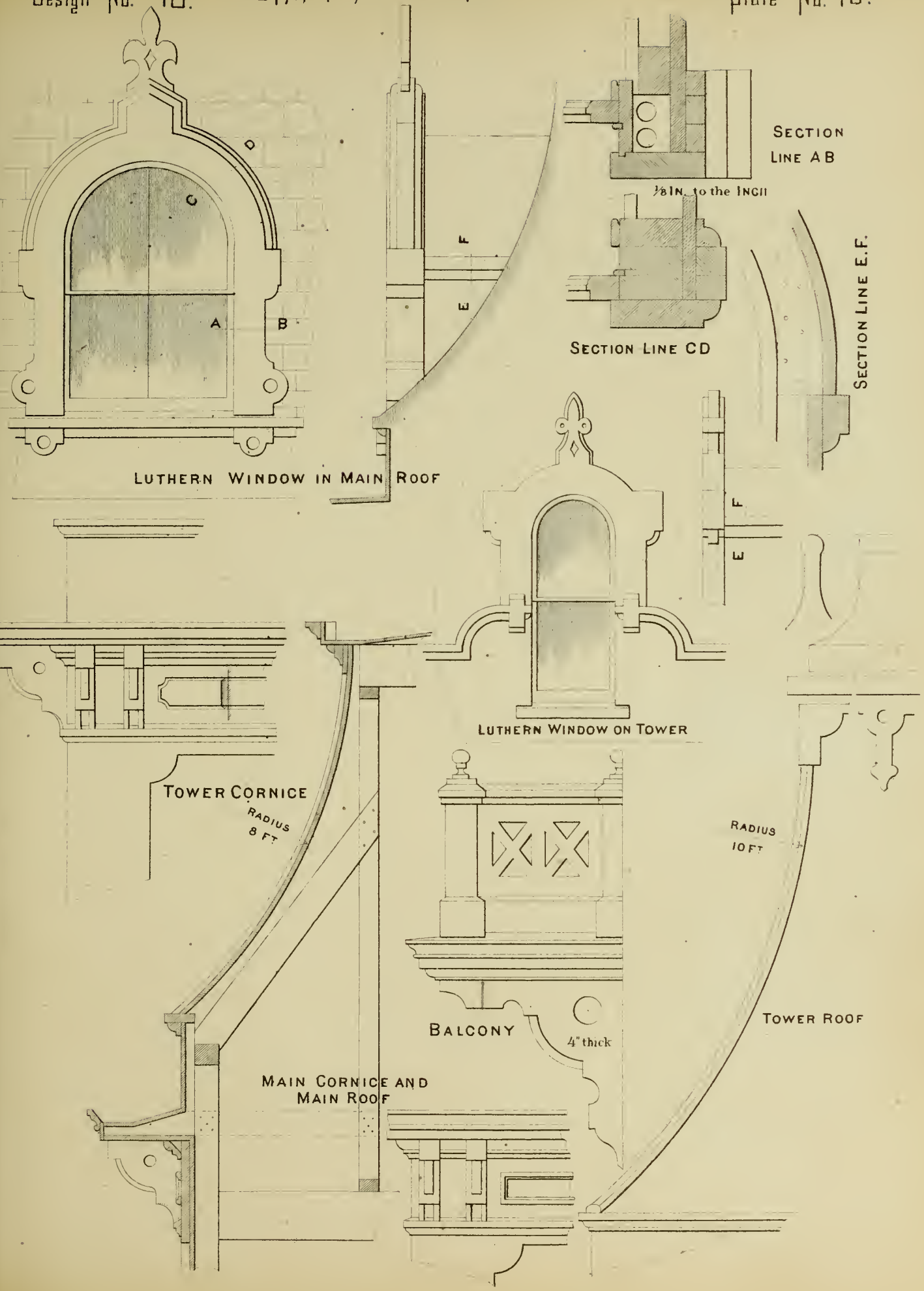
Plate No. 43.

Design No. 10.

Plate No. 44.

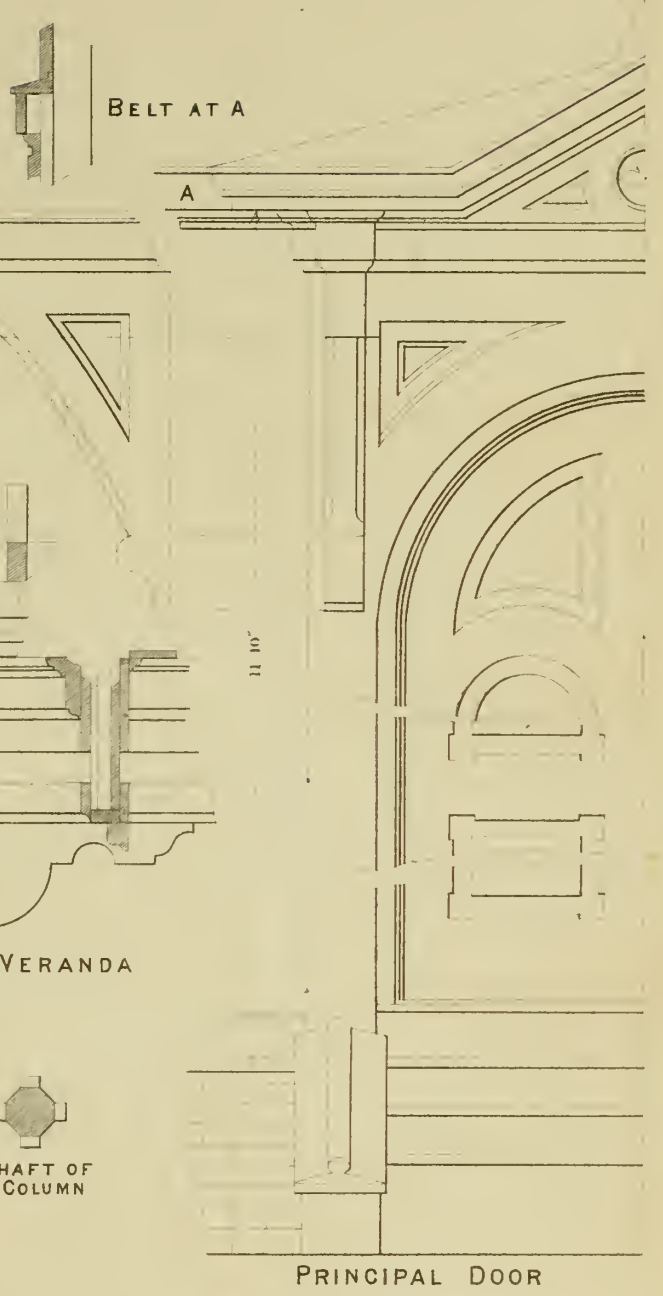
SECTION
THROUGH LINE "A" "B"
SCALE. 8 Feet. to One Inch

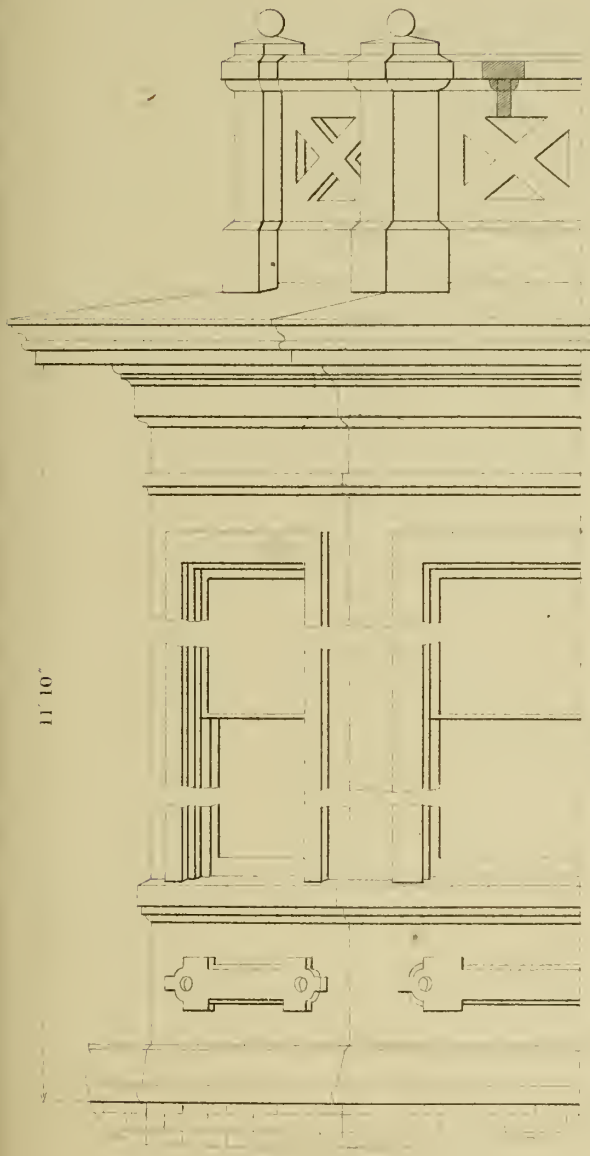
Design No. 10. DETAILS ½ Inch to One Foot. Plate No. 45.



Details

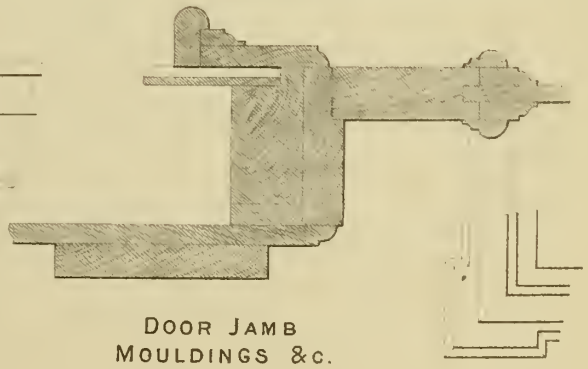
½ Inch to One Foot.





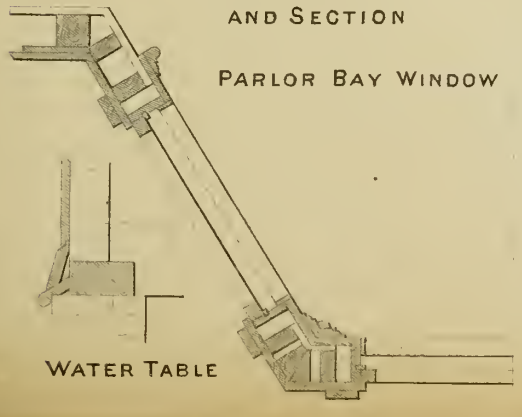
Half Elevation and Section

Parlor Bay Window



Door Jamb Mouldings &c.

1/8 in to the Inch



Water Table

Cresting Veranda Roof 2" thick

DESIGN No. 10.

CARPENTERS' SPECIFICATION.

DIMENSIONS. General dimensions, height of stories, and internal arrangement to be obtained from the drawings.

MATERIALS. Furnish all the materials the best of their several kinds; the lumber of white pine when not otherwise specified, well-seasoned and dry.

Sashes and panel work in all cases to be of perfectly clear lumber.

TIMBERING.

Furnish the following timber of white pine.

Sills, 4×8 inches, laid on the flat and halved together at the angles.

Angle-posts, 4×6 inches. Intermediate posts 4×4 inches, spiked to the sills.

Girts (first one above the sills), 4×4 inches, spiked to the posts and studs.

2d Girt (above sills), 7×1 inch gained into the studs and posts.

Wall and steep roof plates 4×4 inches.

Girders in cellar, 5×5 inches.

1st and 3d tier of beams, 9×2 inches. 16 inches from centres.

2d tier of beams, 10×2 inches. " "

Steep pitch rafters, 2×6 inches. " "

Flat rafters and tie beams or ceiling joist, 8×2. 2 feet from centres.

Hip and valley rafters, 9×3 inches.

The panels of tower cornice and of bay windows will be raised $1\frac{1}{4}$ inch with moulded edges.

Furnish the cresting for piazza and bay window roofs, scroll-sawed from $1\frac{1}{2}$-inch plank.

SIDE SHEATHING.

Sheath up all around the building with perfectly sound and nearly clear $\frac{7}{8}$-inch boards.

To be as nearly 8 inches in width as will conform in courses to the top and bottom of window frames, etc., all tongued and rebated from the top of water-table to the belt course level with the piazza and bay window cornices.

Furnish the windows with $2\frac{1}{2}$-inch rebated sills.

Sheath the sides of the building all around above the belt course with narrow tongued sheathing, not exceeding $4\frac{1}{2}$-inch width, flush joints.

Form gutters in the piazza roof.

Furnish small scroll-sawed finials and corbels to tower windows, etc., as shown.

Furnish any other outside trimmings required by the design.

Floor over the tin roof of front bay window with narrow framed $1\frac{1}{4}$-in. slats, $\frac{1}{2}$ inch apart, firred up clear from the tin roof.

FLOORING.

Lay the attic floor with 8×1-inch sound tongued lumber, well nailed through the top.

Lay the 1st and 2d story floors with perfectly sound tongued boards $3\frac{1}{2}$ to $4\frac{1}{2} \times 1$-in, blind-nailed.

Flush off the joints of the floors throughout with the plane.

Cut in $2 \times \frac{1}{2}$-in borders around all the hearths.

Put down hard-wood saddles to all the doors.

PARTITIONS AND FIRRING.

Cross fir the 1st story ceiling with 2×1-inch strips, 12 inches from centres.

Firr down the closet ceilings to a clear height of eight feet.

Cross firr the attic ceiling with 2 × 1-inch strips, 16 inches from centres.

Firr off the small rectangular dome over stairway, as shown by the plans and detail drawings.

Firr out from the steep pitch rafters to form the curved slope of the roof, with 1½-inch plank, sawed to the required form, also for the main cornices, as shown.

Do any other firring that the design requires.

Set all the partitions that support beams with 2 × 4-inch hemlock, 12 inches from centres, with 4 × 3-inch plates (square-edged, straight and sound) and 4 × 3-inch sills. Set all other partitions with 4 × 2-inch hemlock, 16 inches from centres. Set up the necessary studs and plates from ceiling joist in attic to support flat rafters.

Bridge all the partitions once in their height.

Form all the angles in partitions solid, and set the door studs double.

Set grounds to all openings and leave on.

CRESTING. Provide the steep roof ridge with iron cresting as per elevation. Also furnish the iron finials and crestings on tower roof.

STAIRS.

Build the cellar flight of stairs with 1½-inch strings and 1¼-inch treads, planed up and grooved together. Provide with pine slat rail through the cellar, and enclose in the 1st story with plastered partition, with door at the head.

Build the principal flight of stairs, extending from first story to attic, with 1¼-inch strings and treads, and 1-inch risers and facias, the steps front and back tongued. Mould the nosings and the front string.

Mould the wall string on top to correspond with the base in the hall.

Support the whole on 7 × 2-inch timbers, rough bracketed to each tread.

Surmount the whole with 3 × 4½-inch compound moulded rail, 2-inch fancy turned balusters, and supply an 8-inch octagon veneered newel at

the start. The rail, balusters and newel to be of black walnut, well rubbed down with oil, and finished with sheilac.

Plane up and groove together a neat step ladder to the scuttle.

WINDOWS AND GLAZING.

Make the cellar window frames with two 2-inch plank, rebated for the sash. The sash to be $1\frac{1}{2}$-inch thick, hinged at the top, and be fastened up and down with iron buttons.

Make the two small frames in rear of attic hall in a similar manner, with sash hung on hinges to open sideways; fasten as above described.

Make the attic front windows and the front parlor windows for hinging the lower casement, in the French manner—the upper to be hung,

All the windows, not otherwise above specified, to be provided with the usual box frames, and double hung sash, with 2-inch patent axle pulleys and best hemp cord. All the sash, except attic and cellar, to be $1\frac{3}{4}$-inch thick, and all to be made in the best manner, with weather lipped meeting rails. All other window sash throughout to be $1\frac{1}{2}$-inch thick.

Glaze all the windows with the best quality of English sheet glass.

Style of sash, number of lights, etc., to be as shown upon the drawings.

Furnish an hipped sky-light of the best water-tight construction, placed over the dome. Glaze with corrugated glass.

Fasten all the window sash with the most approved style of sash fastenings, corresponding in finish with the neighboring door and bell furniture.

DOORS, Etc.

Make the front doors $2\frac{1}{4}$-inch thick, paneled as per elevation and detail drawings, with raised mouldings.

Glaze the centre panels with the best quality of enameled glass of such pattern as the owner may select.

Make the first story principal room doors $1\frac{3}{4}$-inch thick and six panels

each, and all other room doors 1½-inch thick and four panels each, all to be faced with mouldings.

Make the door opening from main hall to wash-room a sash-door, glazed above with enameled glass, and paneled below to correspond with the neighboring solid doors.

HINGING. Hang all the doors on butt hinges of the most approved manufacture and the required size.

LOCKS. Fasten the cellar and attic doors with rim locks, and all other doors throughout with mortice locks of the best city manufacture. Extra size lock with night-latch apparatus, to be placed on the front door.

BOLTS. Provide each outside door with strong malleable iron shove bolts, of appropriate finish; tail bolts for the double doors.

FURNITURE. Bronze metallic furniture to be used throughout the principal rooms and hall of the first story, white porcelain in the second story, and dark mineral elsewhere throughout.

BELLS. Fit up with copper wire in zinc tubes the following bells:

One pull from front door to kitchen.
One " " parlor "
One " " dining-room "
One " " each chamber "
One " " one " in 2d story to servants' room in attic.

The furniture of the pulls to correspond with the neighboring door furniture.

INSIDE FINISH.

Trim the doors and windows throughout the principal rooms and hall of first story with 6½-inch moulded and banded architraves, and put down 8½-in × 1½-inch moulded base.

Trim the second story throughout with 1-in moulded architraves, and put down 7-inch plain neck-moulded base. Elsewhere throughout trim with $4\frac{1}{2}$-inch plain chamfered and beaded architraves, and (except in kitchen) put down 6-inch chamfered base.

Insert the foot of the base into ogee moulded carpet strips, rebated $\frac{1}{2}$-inch to receive it.

Trim the windows in parlor and dining-room, and principal rooms in second story (including dressing-room), down to the floor with framed moulded and panel backs.

Trim all other windows throughout (above the cellar) with nosing sills and moulded aprons.

CUTTING, ETC. Do all necessary cutting away for and repairing after the plumbers, gas-fitters, bell-hangers, hot-air workmen and others, and afford them all the usual facilities for the prosecution of their work. Screw down the floors over gas-pipes, etc.

BATH-ROOM. Case up the bath-tub as per plan, and panel the front. Trim the wall over the tub with a neat surbase 8 inches in height.

Fit up the water-closet with $1\frac{1}{4}$-inch seats, riser, and brass hinged flap. Fit up the slop-basin in a similar manner. The fittings to be of black walnut throughout.

PANTRIES. Fit up the kitchen and waiters' pantries as indicated on the plans, with shelves and dovetailed drawers. The shelves in waiters' pantry to be enclosed with panel doors fastened with cupboard locks, and all the drawers to have drawer locks.

WARDROBES, CLOSETS, ETC. Fit up the dressing-rooms with wardrobes enclosed with panel doors, with low foot drawers below. The doors and drawers fastened as above.

Fit up the closets with top shelves as indicated on the plans, and in these and the wardrobes put up the required number of double iron clothes hooks.

The shelves and hooks to be put up on neat moulded cleats, the whole of clear stuff.

WAINSCOT. Wainscot the walls of the kitchen and wash-room 3 feet in height with clear, narrow, beaded, vertical sheathing, neatly capped.

WOODEN MANTEL. Put up a neat wooden mantel, of marble pattern, in the large attic bed-room.

OUTSIDE BLINDS. Provide all the windows, except those of cellar and attic, with plain, neat Venetian blinds, in two and three panels each as their size requires, furnished with narrow rolling slats. Hang on the best blind hinges, and fasten with the most approved patent fastening.

FENCE. Build a fence across the rear and on one side of the lot, from the rear to the front house line, extending in all a distance of 145 feet, with squared chestnut posts set 3 feet 6 inches in the ground, and covered 7 feet high with sound merchantable mill-worked fence boards, neatly capped.

WASH-TRAY. Fit up the wash-trays in wash-room with 2-inch plank and $1\frac{1}{4}$-inch hinged plank cover, planed up and put together with white lead joints.

PAINTING.

Properly stop and otherwise prepare for and paint all the planed wood work outside and inside of the building, and upon the premises that it is customary and usual to paint, (including the piazza floor and outside steps, the iron cresting, and the cutting in of the stairs), three good coats of the best American white lead and oil paint.

Paint the kitchen fire-place, the chimney shafts where exposed to exterior view, and the outside of the brick underpinning two coats.

Paint the tin-work of the roofs two good coats of the best metallic roof paint. Finish the roofs of the dormers, imitating the color of the slate.

Paint the fence one good heavy coat of ochre, colored as directed.

Finish all other portions of the work in color as directed.

Grain the wood-work of the kitchen and wash-room in imitation of light oak, and varnish one good coat.

GAS PIPES. Put in all the required gas pipes ready for the fitters. The work to be done in accordance with the requirements and regulations of the Brooklyn Gas Light Company.

GENERAL SUMMARY. All the work to be executed in the best manner, and to the entire satisfaction of the Architect. The materials to be the best quality of their several kinds, when not otherwise specified.

Execute any and all further carpenter work necessary to fully complete the building fit and ready for occupation, which may be shown by, or is to be reasonably inferred from, the drawings, though not herein specified.

Remove all carpenters' waste material and rubbish from the premises at the completion; scrub the floors and wash the windows.

DESIGN No. 10.

MASONS' SPECIFICATION.

EXCAVATION.

Remove the top soil at the commencement, and replace it over the graded surface at the completion.

Excavate for a cellar under the entire building as shown on cellar plan, the depth figured on the section; also, excavate 3 feet 6 inches deep for the piers supporting piazza posts, and the sills of front steps. Grade off the earth around the building, or remove it from the premises, as may be directed by the owner.

STONE WALLS.

Build the cellar walls of good flat building stone 20 inches thick, laid in hydraulic ground lime and clean sharp sand mortar. Build foundations for the chimneys, piazza and step piers in a similar manner. Put down concrete footings 8 inches deep, and extending in width at least 6 inches beyond the thickness of the walls on each side, under all the walls of the building; the concrete composed of small broken stone, gravel, sand and cement, in the usual proportions.

Build both sides of the stone walls by and full to a line, finish in height level with the grade, and properly flush and point the inner face at the completion.

Put flat stone foundations under the cellar piers supporting girder.

BRICK WORK.

From the top of the stone walls at the grade level build a brick wall 12 inches thick and 7 courses in height. The wall to be flush on the inner face with the stone wall below.

Build the chimneys and cellar ash pit as per plans. Carry up the flues of uniform size and smoothly pargetted throughout. A ventilating flue with register opening near the ceiling line in kitchen to be carried up in the rear stack, between the two smoke flues.

The two flank chimneys to be topped out above the roof as per elevation and detail drawings, the remaining one on the ridge to top out plain.

Build the girder piers in cellar 12 inches square and cap with blue stone. Build the piers supporting piazza posts 8 inches square.

All the above-mentioned brick work to be executed with the best hard-burnt common brick laid up wet, with hydraulic ground lime and clean sharp sand mortar. Face the topping out of the chimneys, the throat, breast and jambs of the kitchen fire-place, and the exterior of the cellar walls, with selected, perfectly formed brick, the joints flushed full and rubbed preparatory to painting.

Turn trimmer arches against all the hearths, and furnish all the required rough brick, mortar and plaster for setting the hearths, grates, mantels and range.

Coal Slide. Build the coal slide shown; line with smooth flag, provide with flag cover with round iron movable grating fastened with chain, staple and padlock.

Nogging. Fill in the entire frame below the attic floor with pale brick on edge laid in mortar with the joints flushed full.

Concrete Floor. Cover the cellar floor flush and smooth throughout, 3 inches deep with concrete in the usual manner.

Blue Stone. Provide the cellar windows with blue stone sills 4 inches rise, 5 inches bed and the required length. Furnish the kitchen fire-place with rubbed blue stone hearth of the size shown on the plans, and not less than $3\frac{1}{2}$ inches thick. Provide smooth dressed flags, 2 feet in width by the required length, and bed in sand at the foot of the front and rear outside steps.

Lath the cellar ceiling and plaster one good coat.

Lath the walls and ceilings of the 1st and 2d stories throughout, and the attic hall and front bed room, and plaster three coats; scratch, brown and hard-finish with the best materials.

Finish off a neat plain dome over main stairway, with small mouldings at the angles; the size indicated on the plans.

Run moulded cornices of about 7 inches rise and 10 inches projection in the parlor and dining-room, and 5 inches rise and 8 inches projection in the halls and in 2d story principal rooms.

Put up neat centre-pieces of such pattern as the owner may select, of appropriate size, in the parlor, main hall and dining-room.

The plastering in the kitchen and wash-room to extend down to the grounds of the wainscot capping; in all other cases, to extend down to the floors and up to the grounds of the openings.

The walls in all cases to be finished plumb and the ceilings level, the angles to be maintained sharp and regular in line.

Do all necessary patching and mending made necessary by the plumbers, gas-fitters, bell-hangers and other workmen.

STONE LINTEL. Provide the kitchen fire-place with rubbed stone lintel of 8 inches rise and 4 inches bed by the required length.

CESS-POOL. Stone up where directed a cess-pool of 3 feet diameter and 12 feet deep, to receive the drainage from the house and the discharge from the roof leaders. Make the necessary connections to the building for that purpose through 6 inch vitrified or cement drain pipe, laid below the action of the frost and properly trapped.

CLEANSING, &C. Remove all rubbish and waste material from the premises that may have been accumulated by the Mason during the progress of the work, and leave building and premises broom clean at the completion.

GENERAL SUMMARY. Any Masons' work not herein specified, and necessary to complete the work in accordance with a fair and reasonable interpretation of the drawings as to their true meaning and intent, is to be executed by the contractor with-

out extra charge, not, of course, including any alterations from or additions to the present design.

The entire work to be executed in the best and and most workmanlike manner, to the entire satisfaction of the Architect.

MEMORANDA OF PAYMENTS ON CONTRACT.

(1). 10 PR. CT. When the entire frame of the building is raised, ready for the roof plank.

(2). 15 " " " building is enclosed, the roof on, and chimneys topped out.

(3). 20 " " " floors are laid, partitions set, brown coat on, and piazza and fences up.

(4). 20 " " " plastering is completed, with cornices, &c., run, exterior work finished and painted, and rough plumbing in.

(5). 35 " " " whole is completed and this contract fulfilled.

DESIGN No. 10.

PLUMBERS' SPECIFICATION.

IRON SOIL PIPE. From the earthen drain-pipe connected with cesspool, extend within the cellar, and from thence up to the water-closet in second story, with a 4-inch cast-iron soil pipe, connected with the closet with 3-inch lead soil pipe and trap. Put up this pipe with iron holdfasts, and caulk all the joints water-tight with lead.

SUPPLY PIPE. Tap, and pay for tapping the Ridgewood main, and connect, through 1-inch extra strong lead pipe, with boiler in kitchen.

BOILER. Furnish, and set on iron stand in the kitchen, a 50-gallon copper boiler of the best construction, well hooked and soldered, and smoothly planished. Connect with the brass pipes of the water-back of the range, through one-inch copper pipes.

KITCHEN SINK. Furnish and put up a $30 \times 20 \times 6$ inch cast-iron sink in kitchen, where indicated on the plans, and supply it with hot and cold water through $\frac{5}{8}$-inch strong supply pipes, $\frac{5}{8}$-inch finished flange bibb cocks, 3-inch waste pipe, and 3-inch trap and brass trap screw. Furnish a lead branch and stopcock below the sink, for emptying the boiler.

WASH-TRAYS. Supply three wash-trays in wash room, as per plans, with hot and cold water through $\frac{5}{8}$-inch strong lead pipe and $\frac{5}{8}$-inch finished flange and thimble-tray draw cocks. Put in strainers, plugs and chains, and connect the over-flow of one tray with waste pipe. Supply with 3-inch main lead waste

pipe trapped and connected with the iron soil pipe, and connected with two-inch branch wastes from each tray.

FURNACE SUPPLY. Supply the furnace with cold water through $\frac{1}{2}$-inch strong lead pipe, a $24 \times 12 \times 12$ inch cistern, lined with four-pound lead, a four-pound copper ball and ball cock, and connect with the evaporator by a copper pipe.

WATER-CLOSET. Furnish, and set in the second story, where shown in the plans, a best-constructed pan closet, with white marble-pattern basin of Wedgewood-ware, enameled receiver, and silver-plated cup and handle. Provide with $24 \times 14 \times 14$ inch cistern, lined with four-pound sheet lead, and furnished with box, valve, wire, five-pound copper ball, ball cock, etc., complete. Make the closet trap of 6-pound sheet lead.

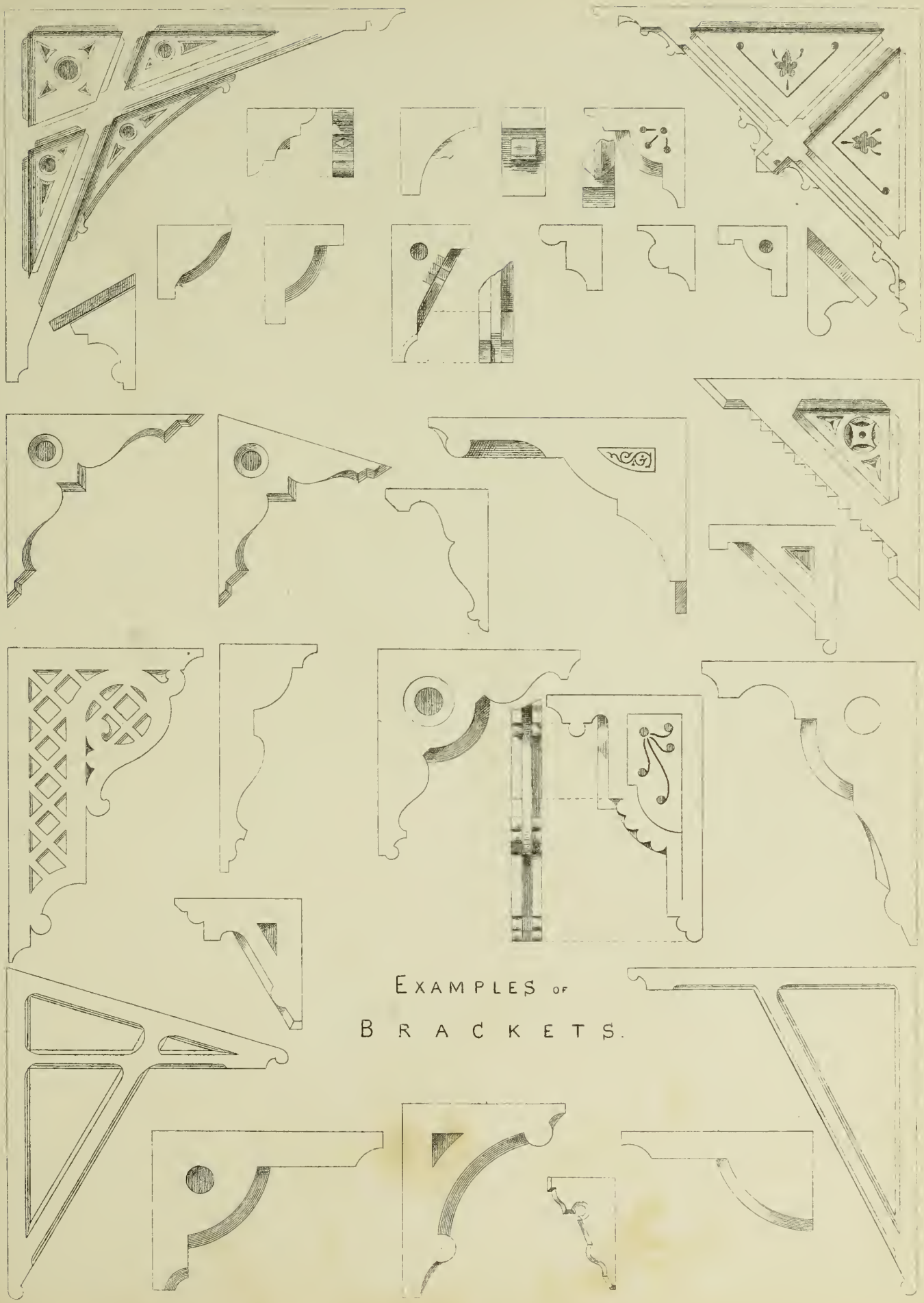
SLOP SINK. By the side of water closet, furnish and fit up a best-ware slop-basin, properly supplied with water and cock, and wasted through 3-inch trapped waste pipe.

BATH. Furnish and put up in second story, as per plans, an eighteen-ounce sheet copper bath tub, tinned and planished, and supply with hot and cold water through $\frac{5}{8}$-inch strong lead pipe, $\frac{5}{8}$-inch silver plated flange cocks, and put in $1\frac{1}{2}$-inch waste, properly trapped. Provide with silver-plated plug and chain.

STOP COCKS, ETC. Put in all necessary stop cocks that may be requisite or directed. Properly trap and grade all the pipes. Furnish all pipe necessary to supply, empty and connect the several works.

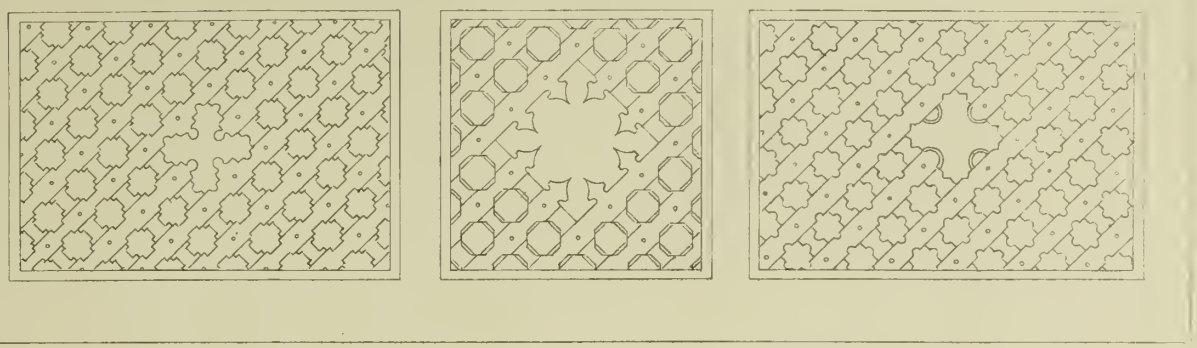
RANGE. Furnish, and set in kitchen fireplace, a No. 2 Knickerbocker range, with water-back, etc., complete.

WORKMANSHIP. The whole of the work to be done in the best manner known to the trade.



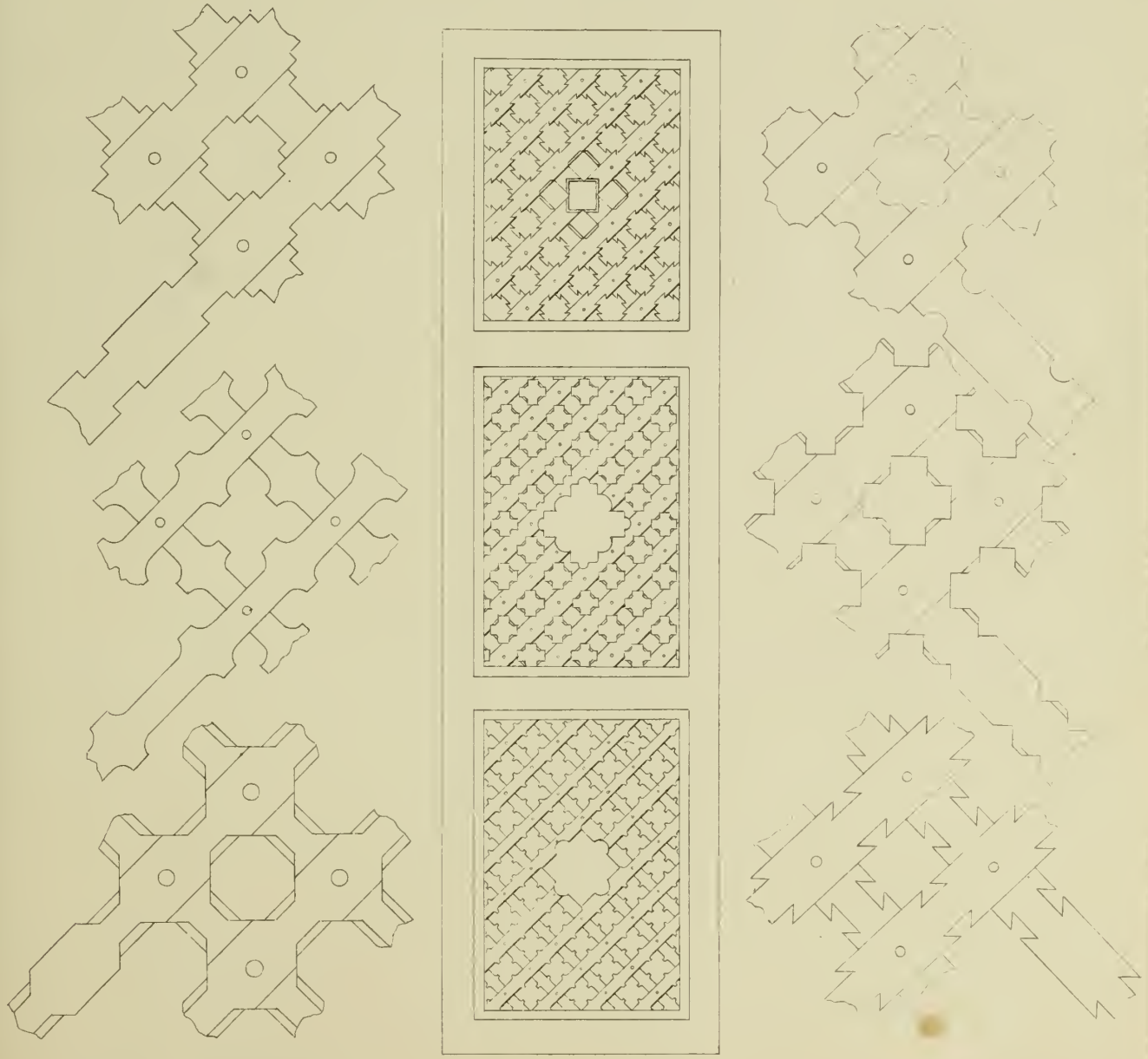
EXAMPLES OF

BRACKETS.

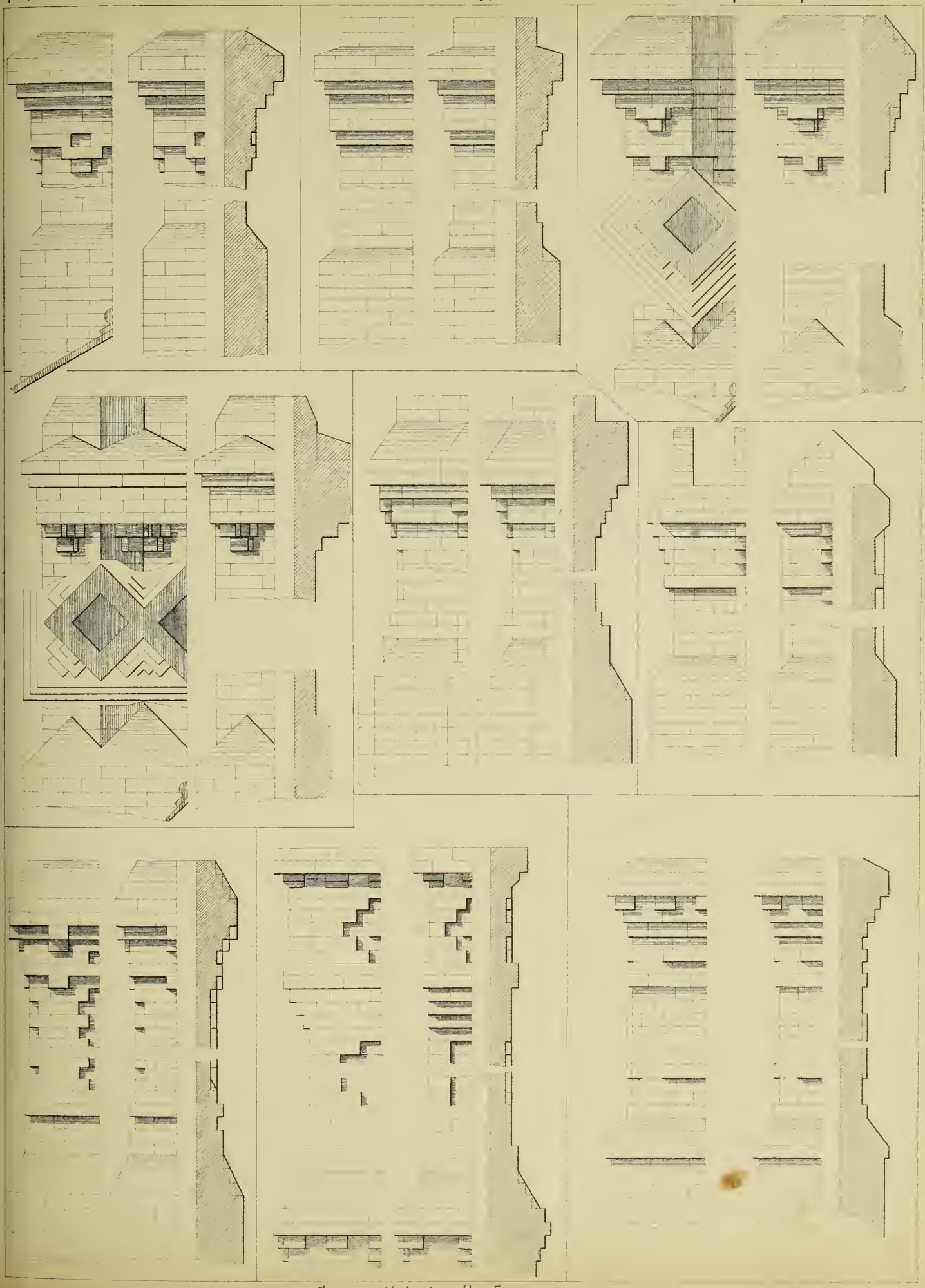


EXAMPLES OF LATTICE WORK.

SCALE. ½ Inch to One Foot.



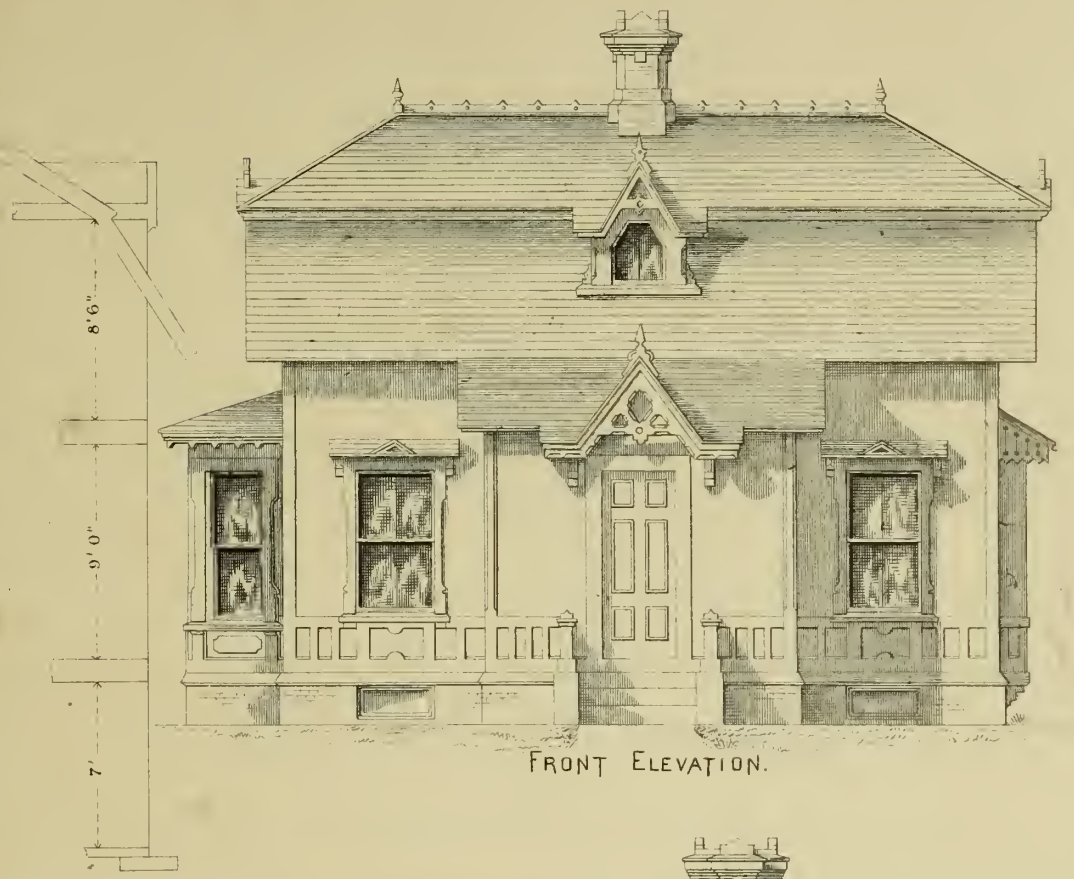
SCALE. ½ Inch to One Foot.



SCALE. ½ Inch to One Foot.

Design No. 11.

Plate No. 50.



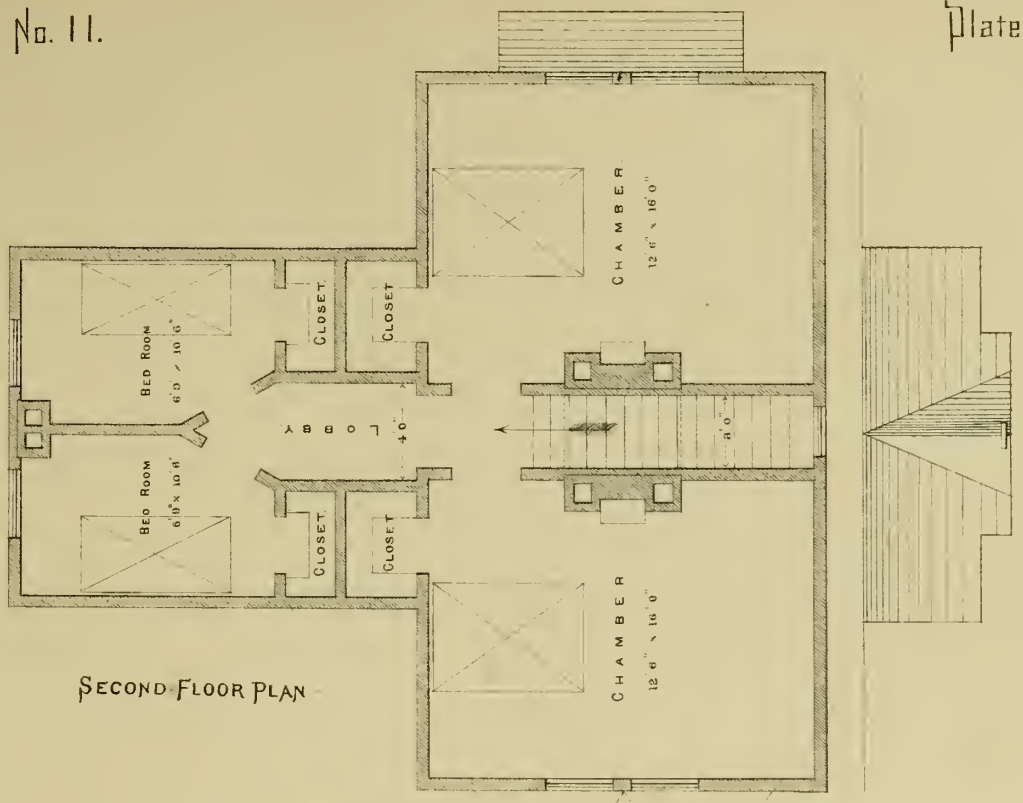
FRONT ELEVATION.

SIDE ELEVATION.

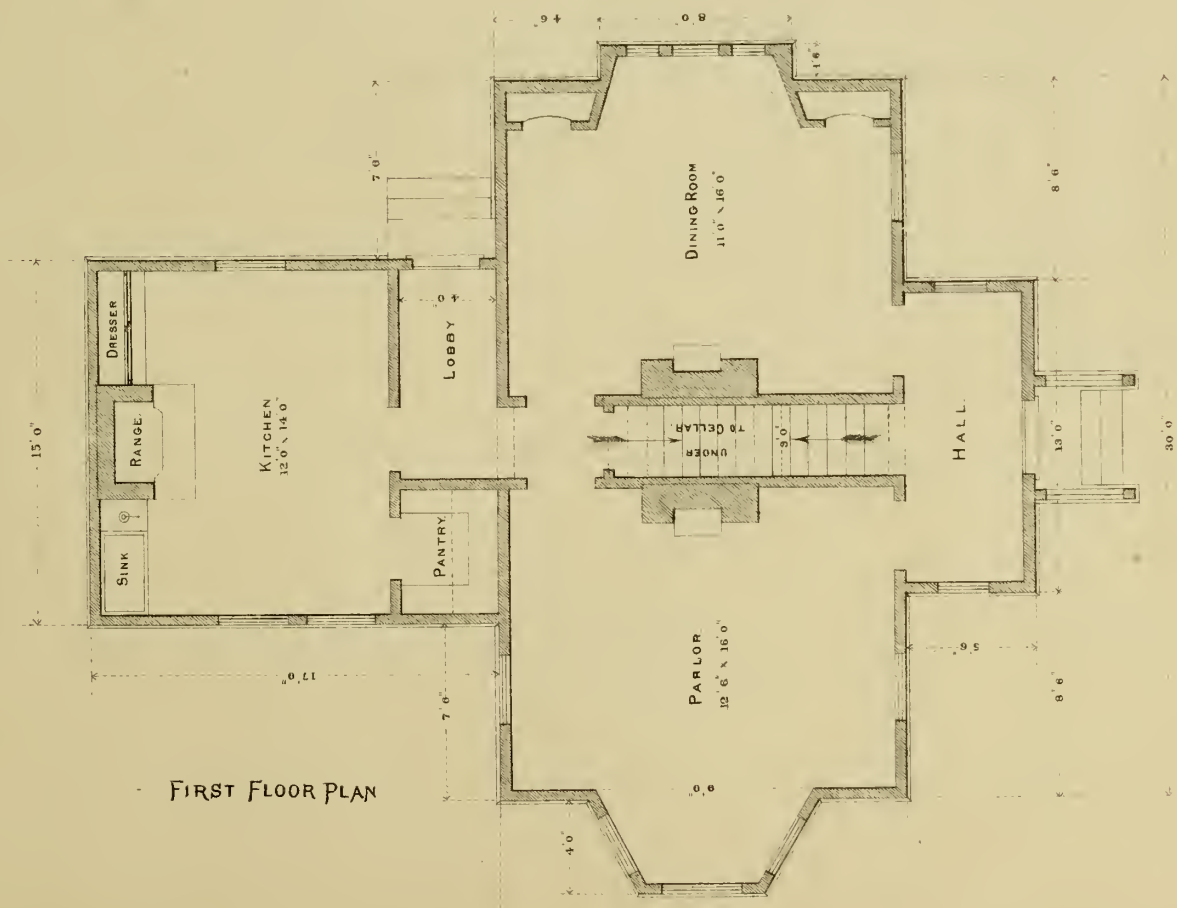
SCALE. ⅛ Inch to One Foot

Design No. 11.

Plate No. 51.



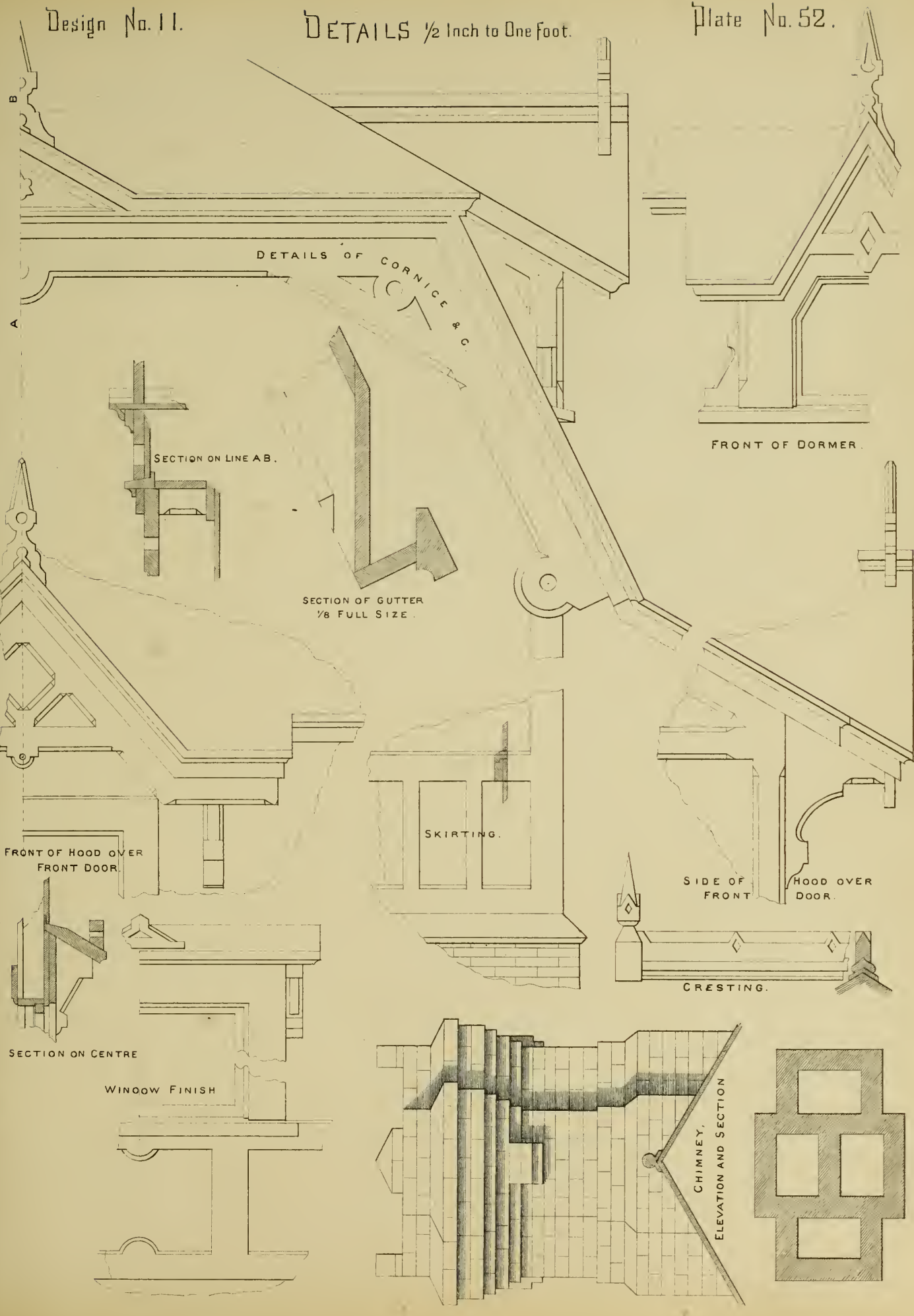
SECOND FLOOR PLAN



FIRST FLOOR PLAN

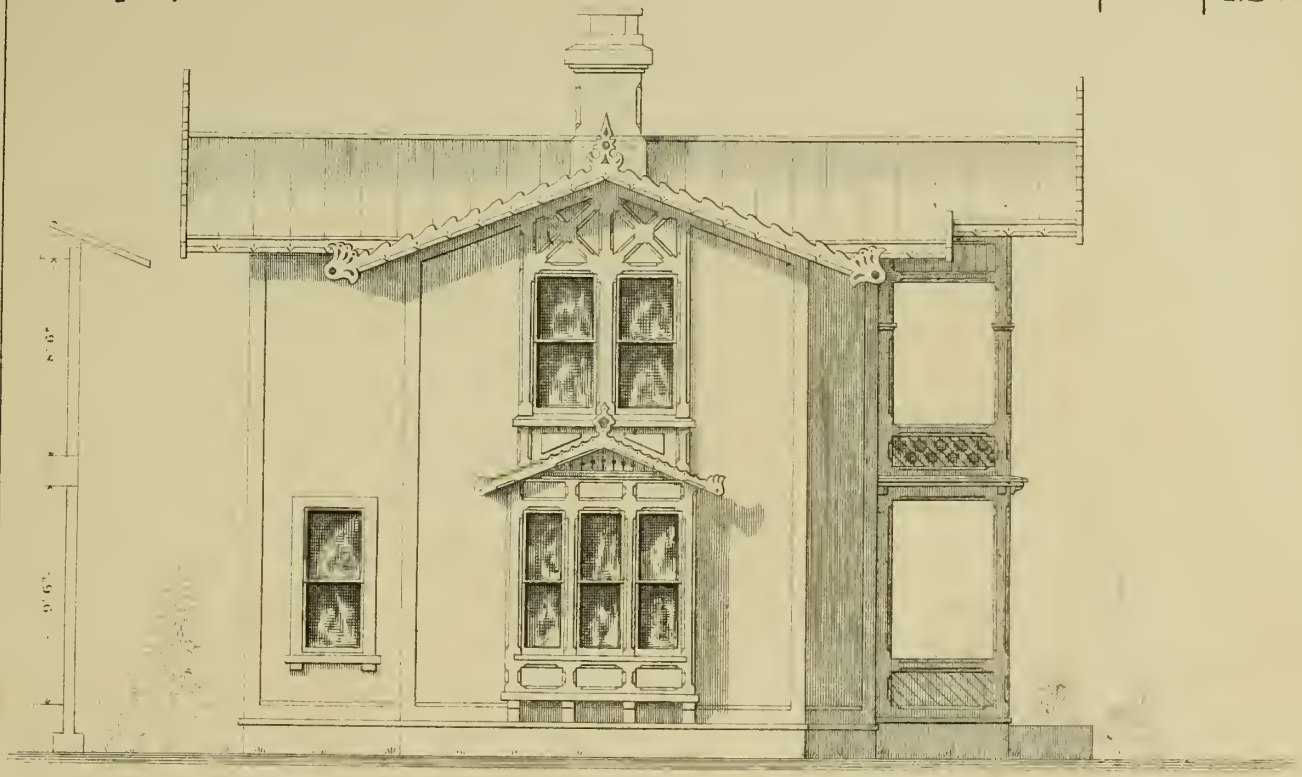
SCALE. ⅛ Inch to One Foot

Design No. 11. DETAILS ½ Inch to One Foot. Plate No. 52.



Design No. 12.

Plate No. 53.



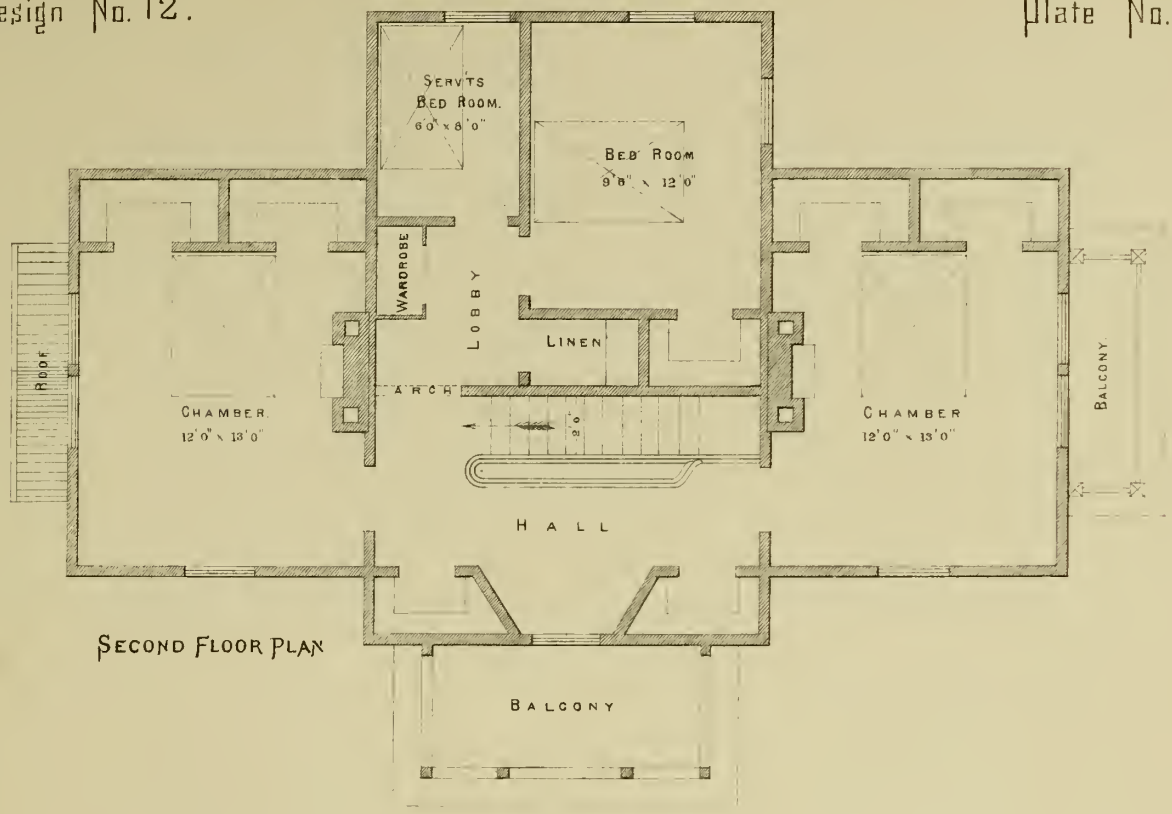
SIDE ELEVATION.

FRONT ELEVATION.

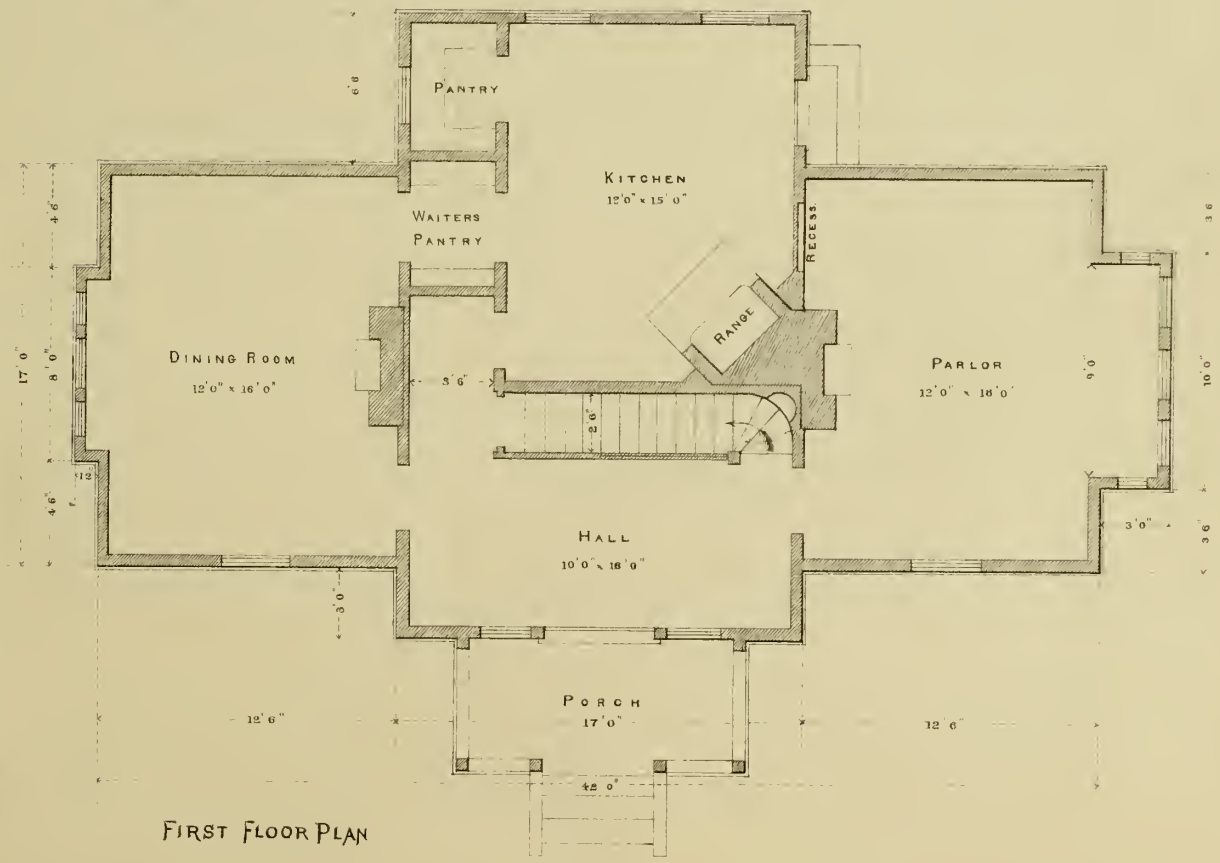
SCALE. ⅛ Inch to One Foot.

Design No. 12.

Plate No. 54.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

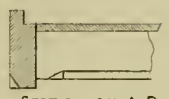
SCALE. ⅛ Inch to One Foot

Design No. 12.

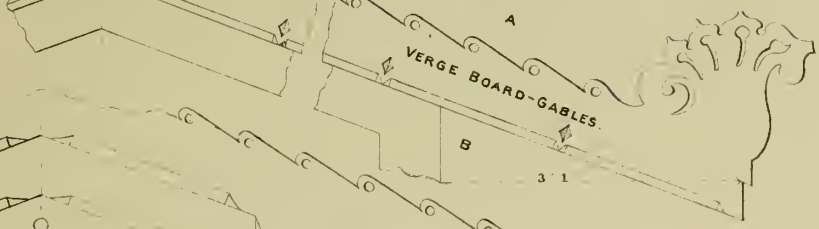
Plate No. 55.

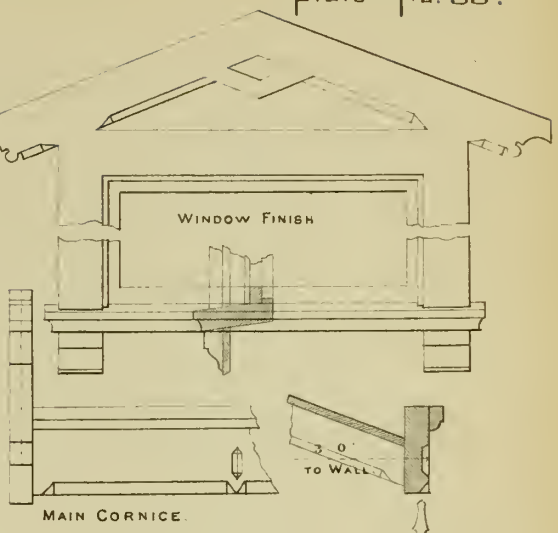
DETAILS

½ Inch to One Foot.

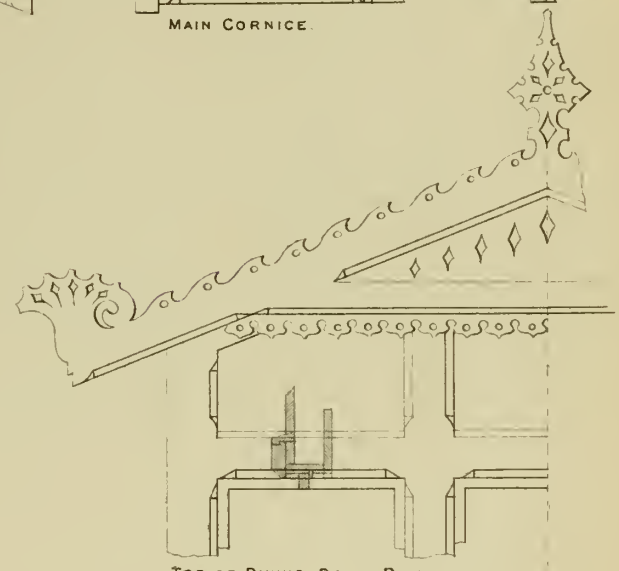


SECTION ON A.B.

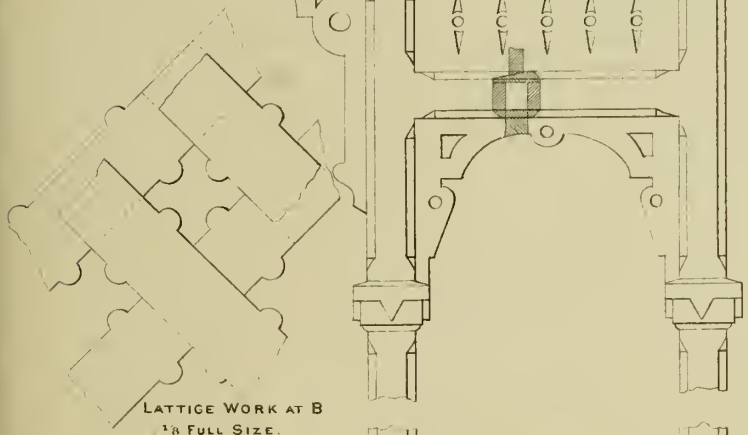




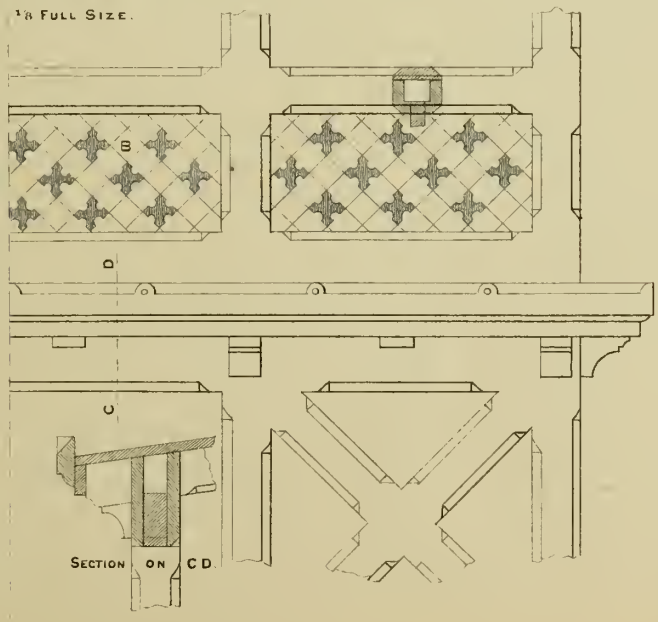
MAIN CORNICE.



TOP OF DINING ROOM BAY.

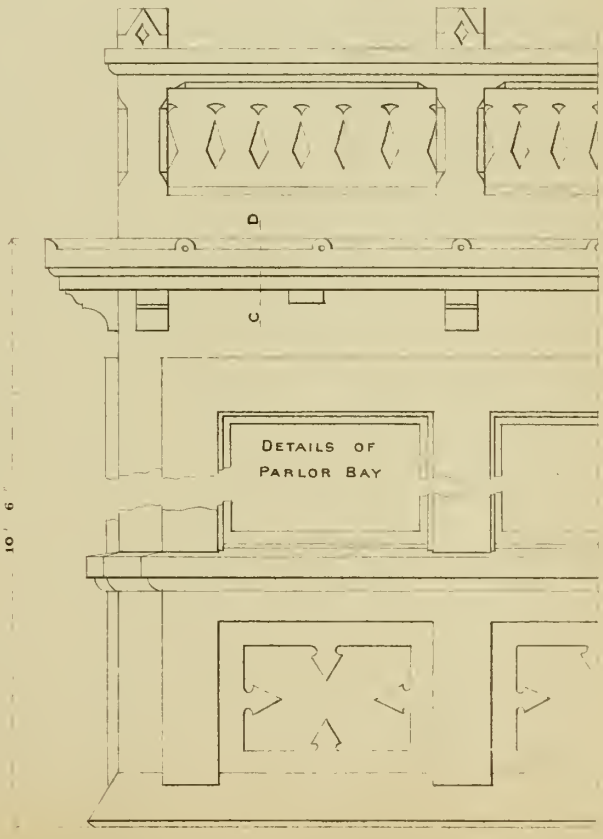


LATTICE WORK AT B
1/8 FULL SIZE.



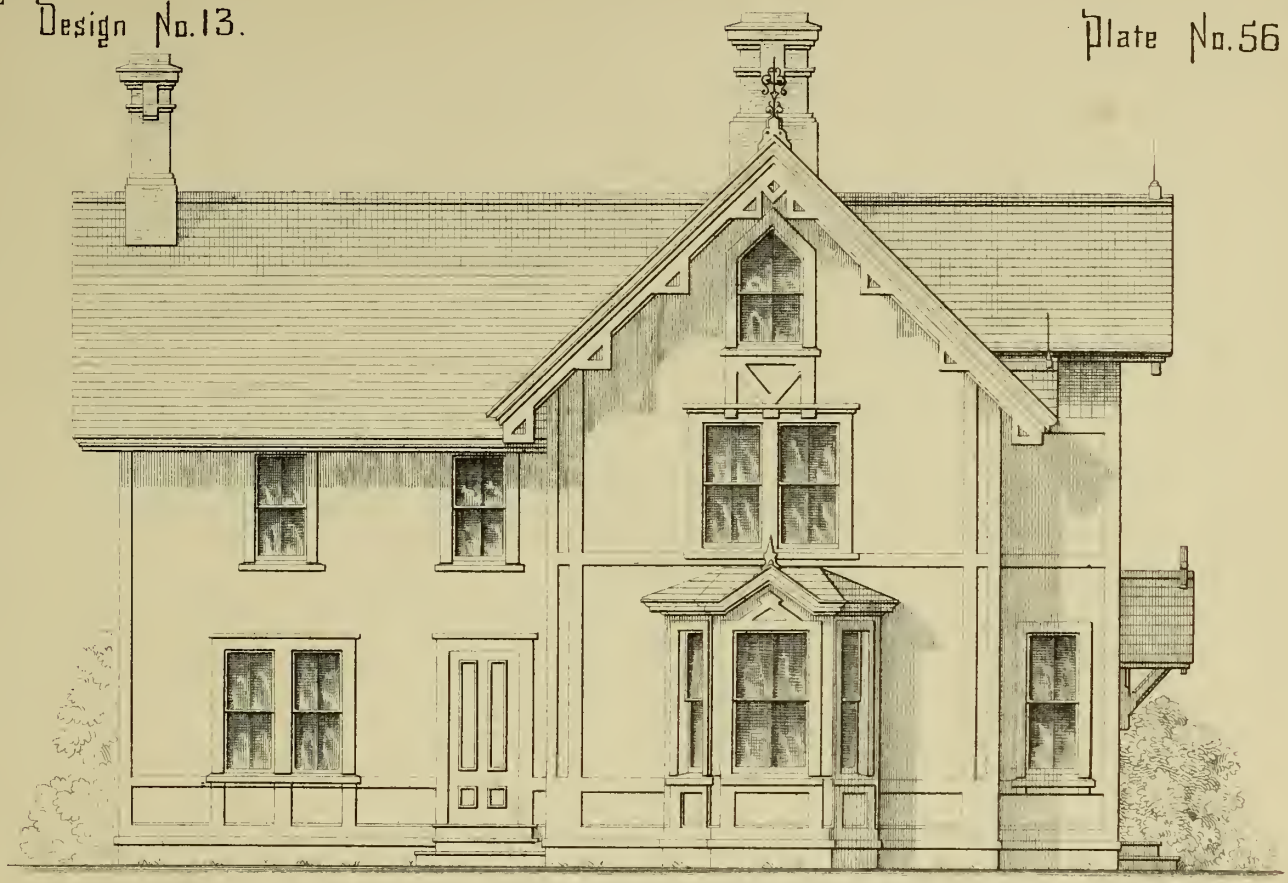
SECTION ON C.D.

DETAILS OF BALCONY & C

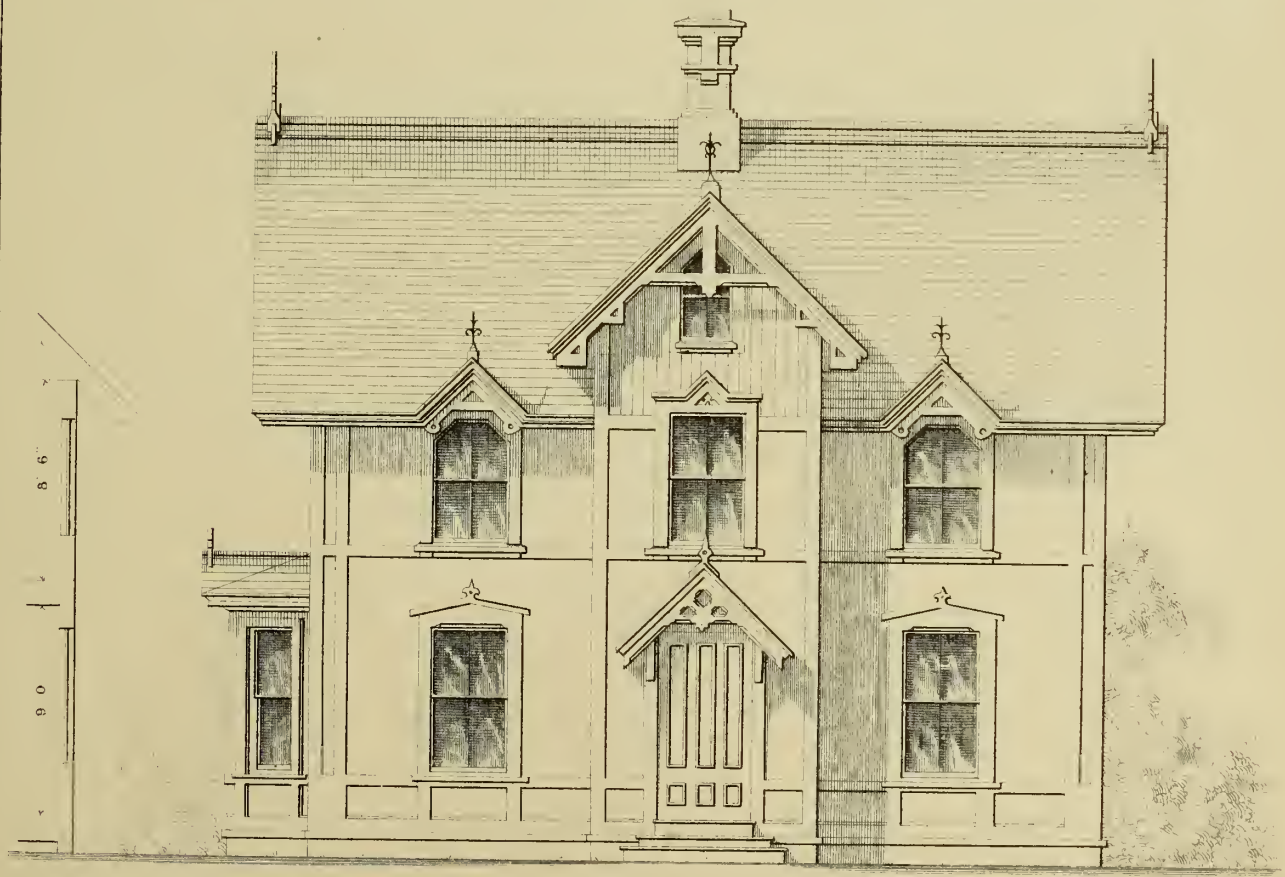


Design No. 13.

Plate No. 56



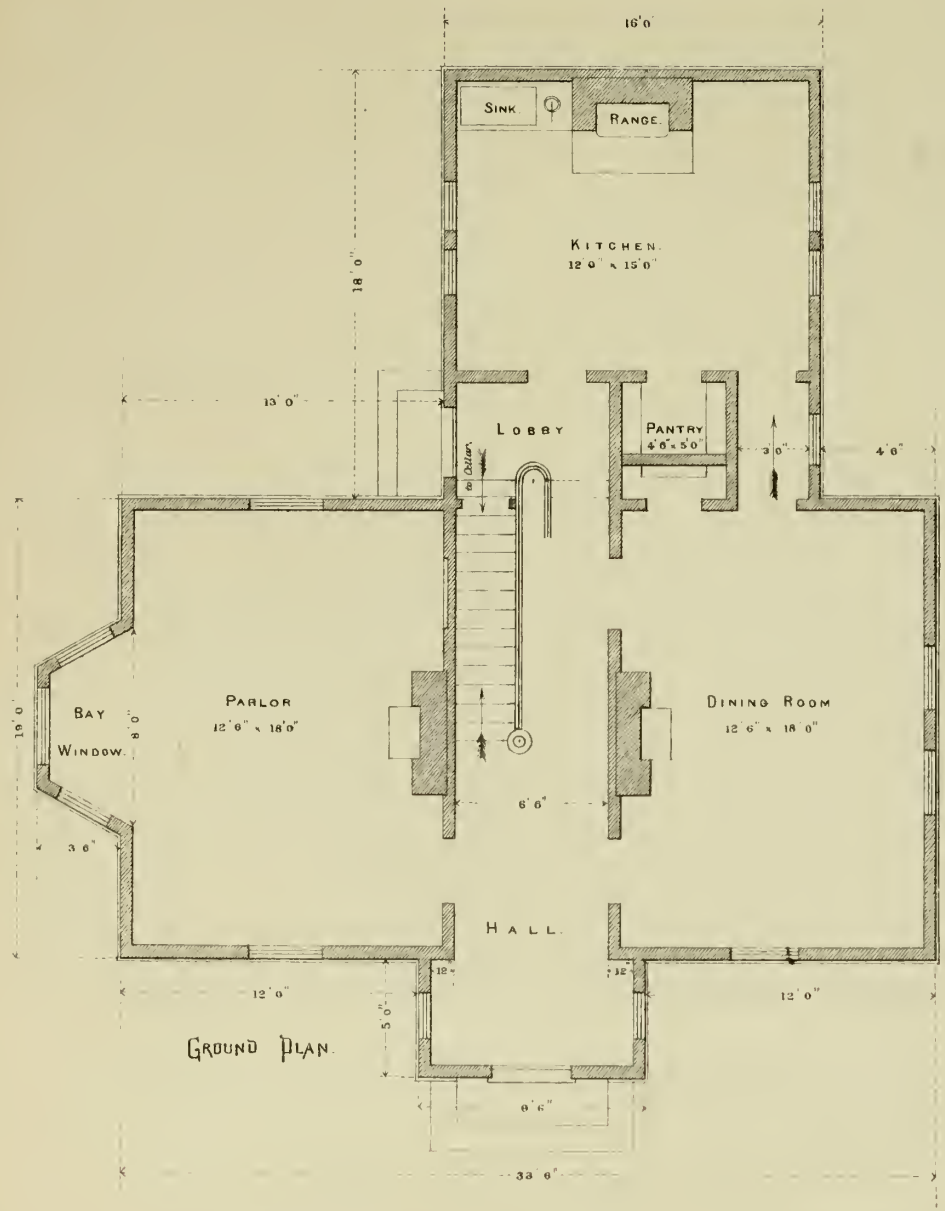
SIDE ELEVATION.



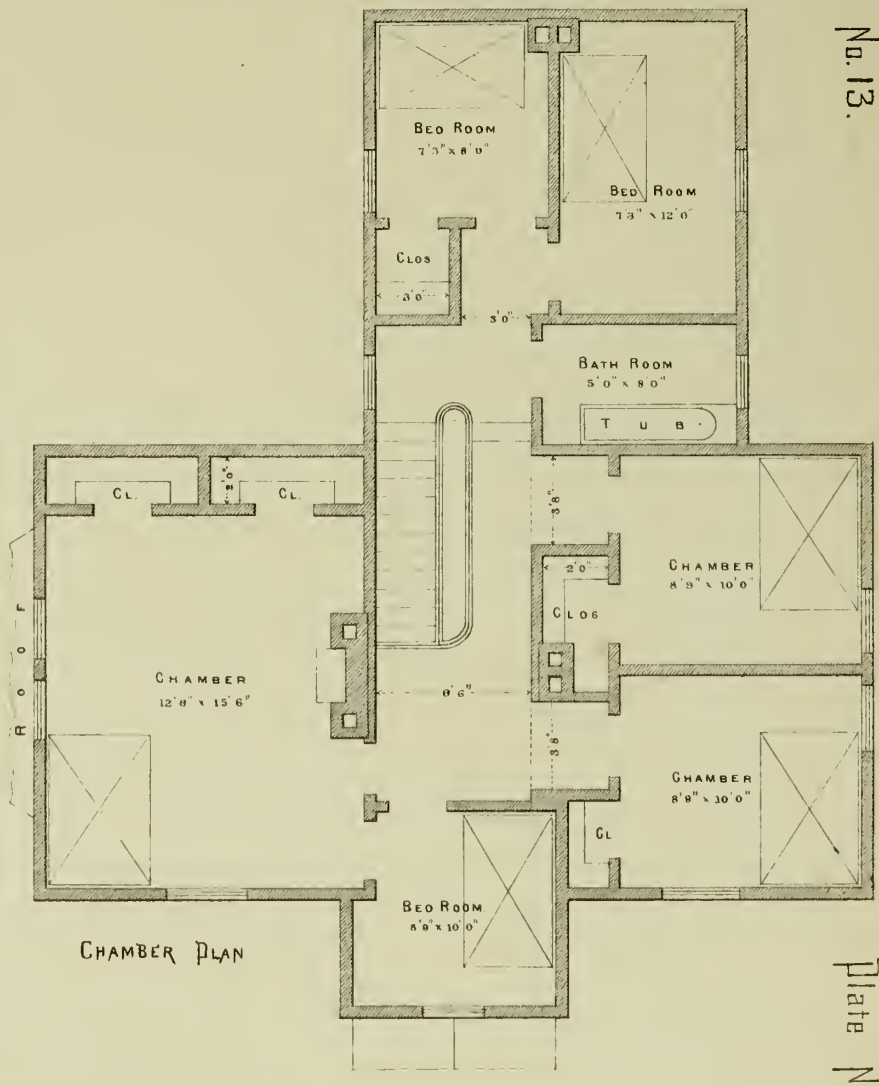
SCALE. ⅛ Inch to One Foot.

FRONT ELEVATION.

Design No. 13.



GROUND PLAN.



CHAMBER PLAN

SCALE 1/8 Inch to One Foot

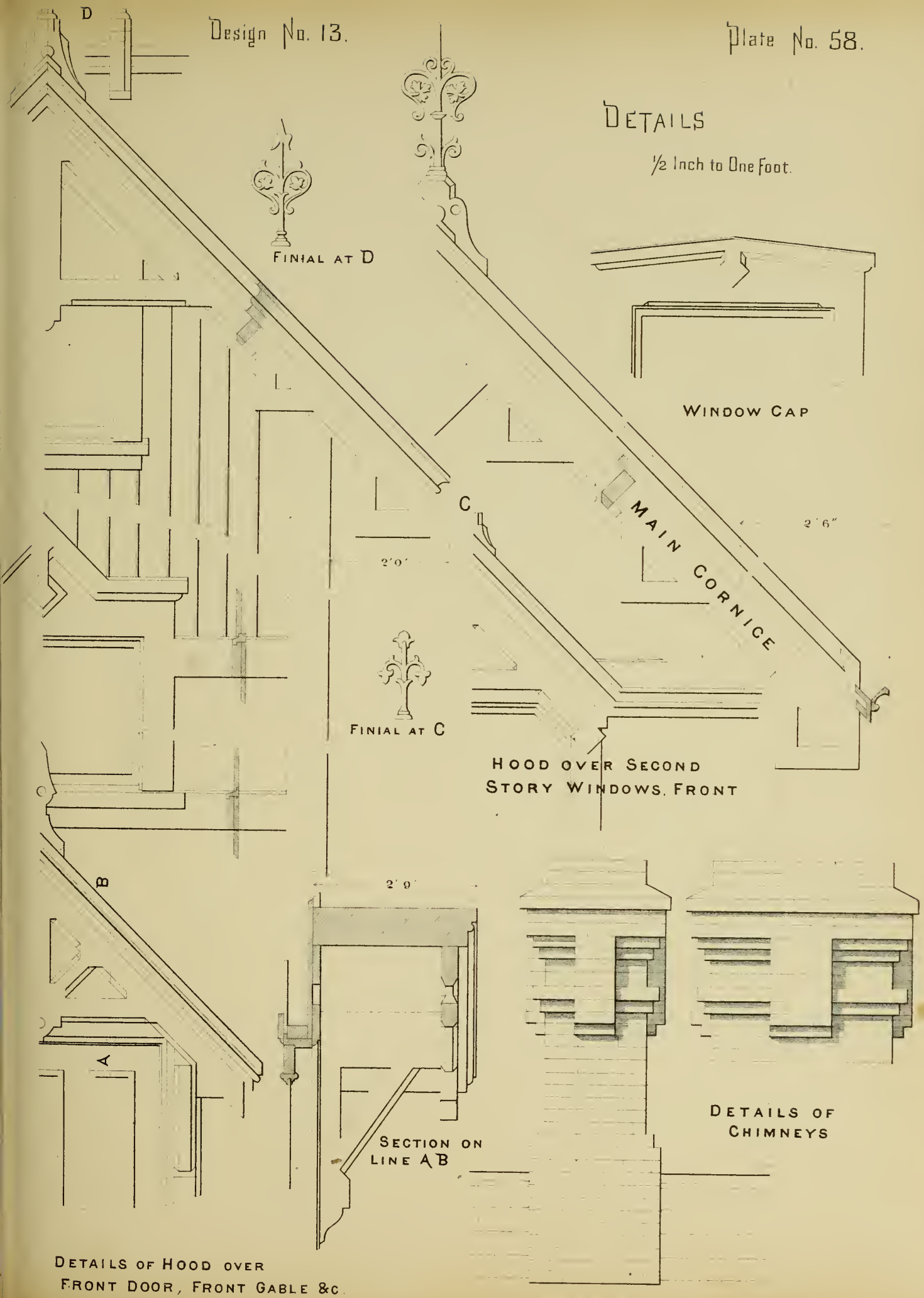
Plate No. 57.

Design No. 13.

Plate No. 58.

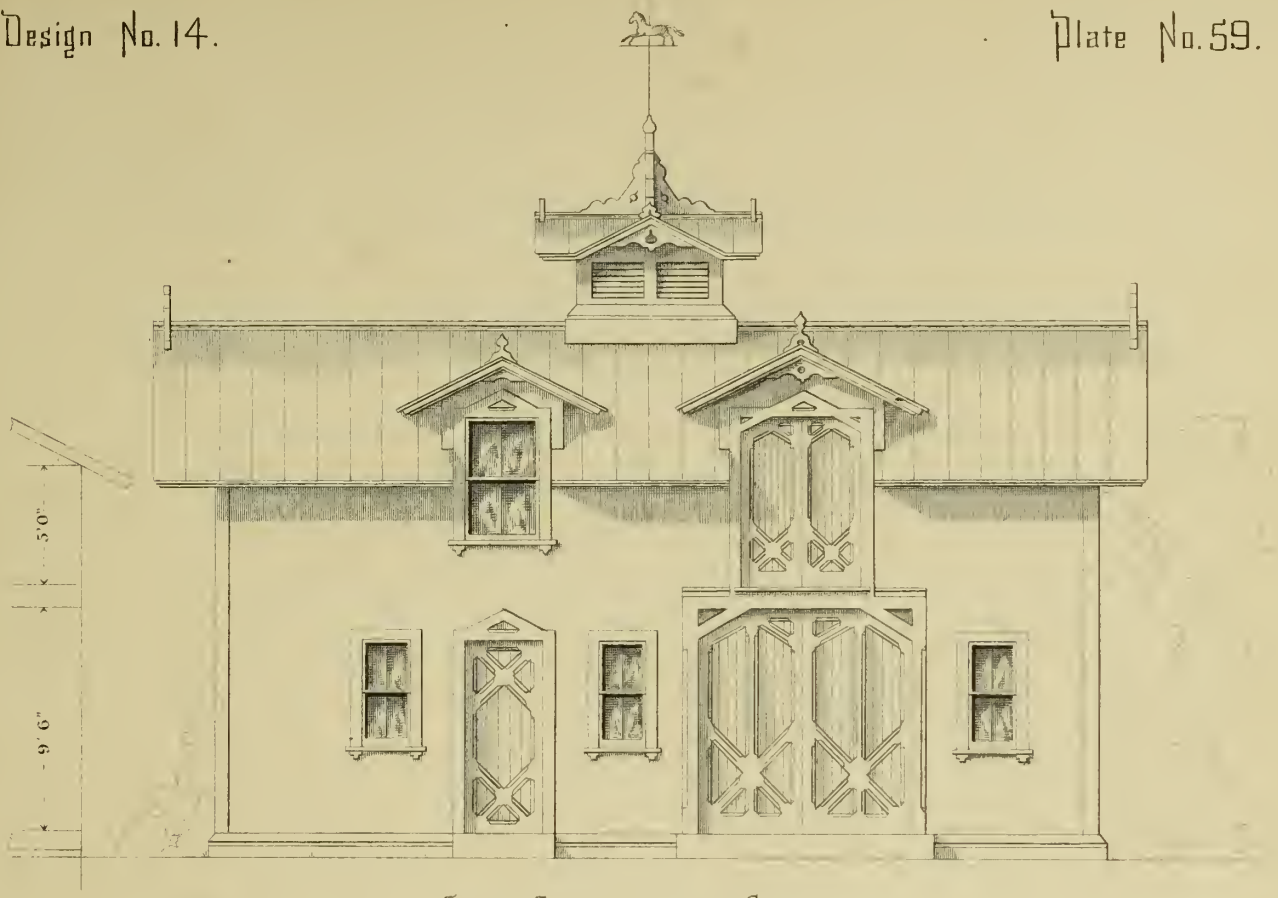
Details

½ Inch to One Foot.

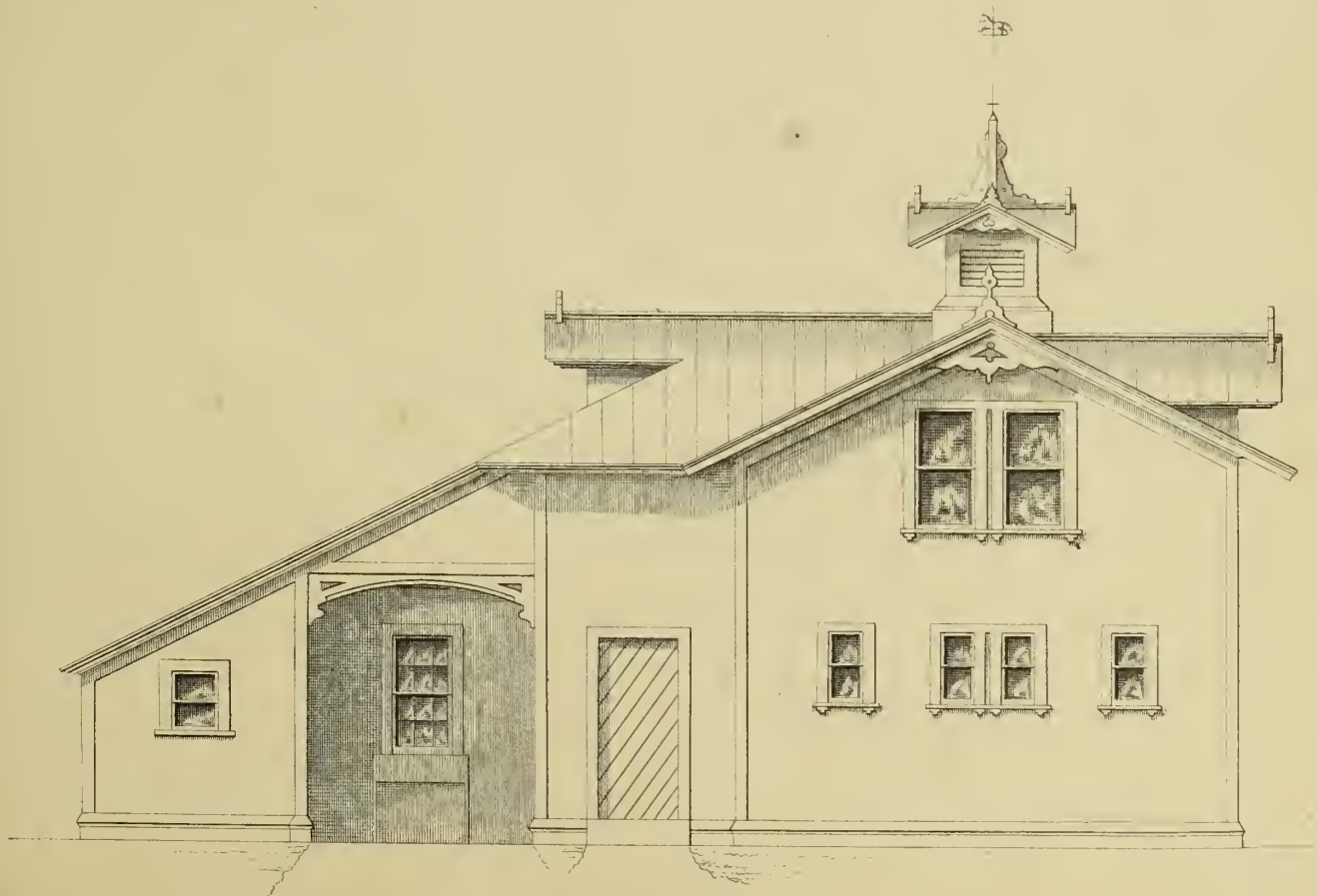


Design No. 14.

Plate No. 59.



FRONT ELEVATION OF STABLE.

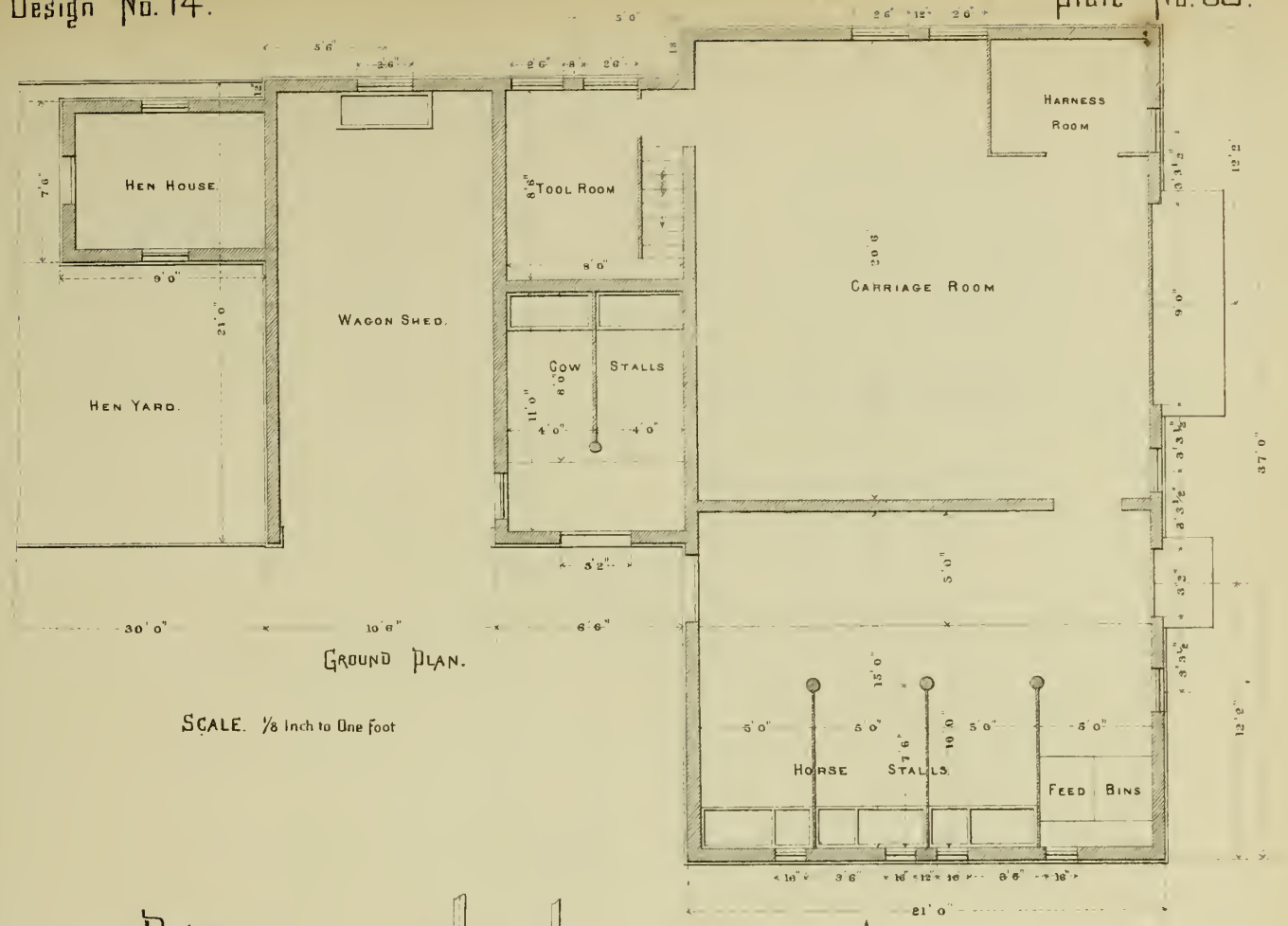


SCALE. ⅛ Inch to One Foot

SIDE ELEVATION OF STABLE.

Design No. 14.

Plate No. 60.

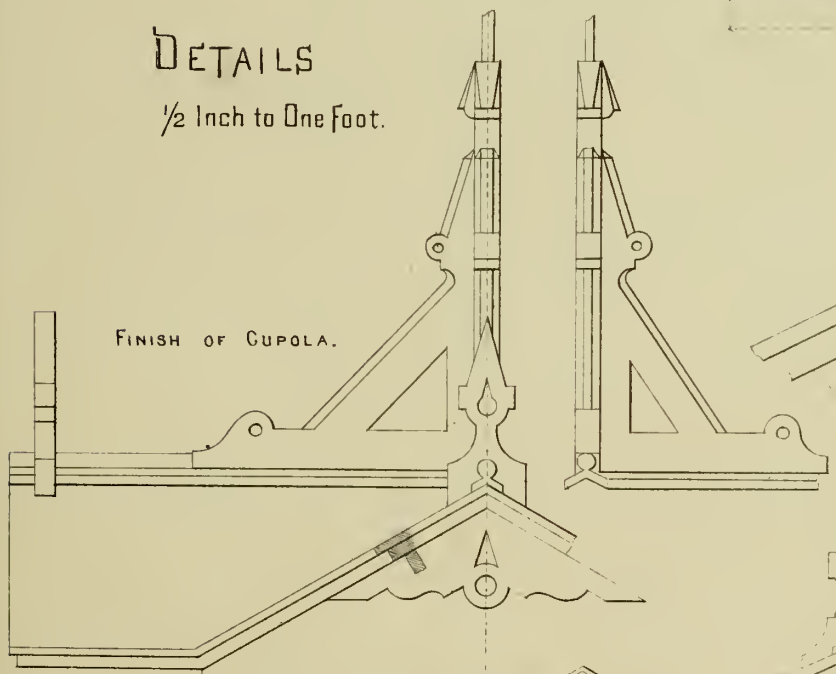


GROUND PLAN.

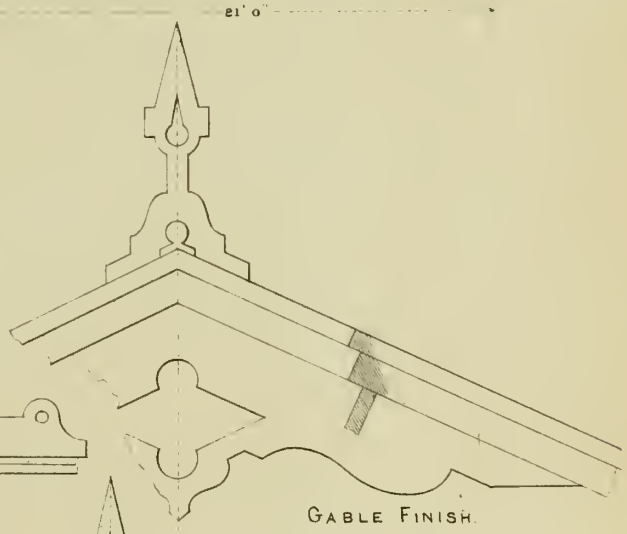
SCALE. ⅛ Inch to One Foot

DETAILS

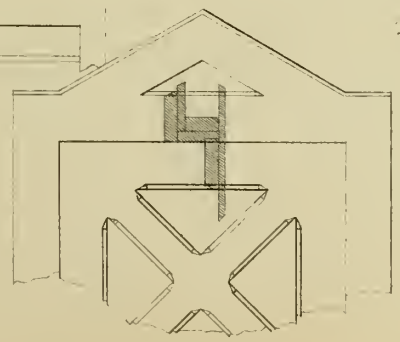
½ Inch to One Foot.



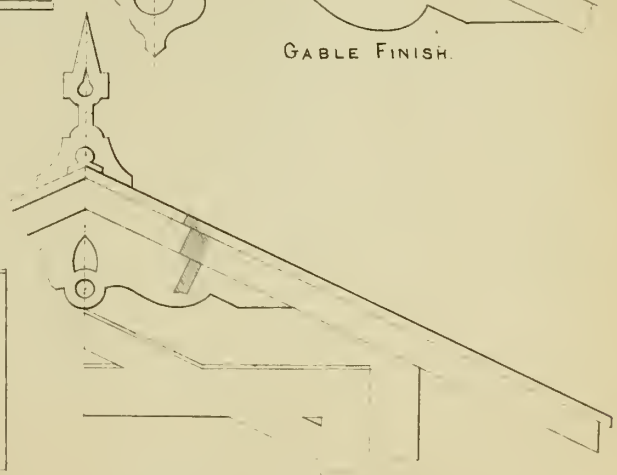
FINISH OF CUPOLA.



GABLE FINISH.



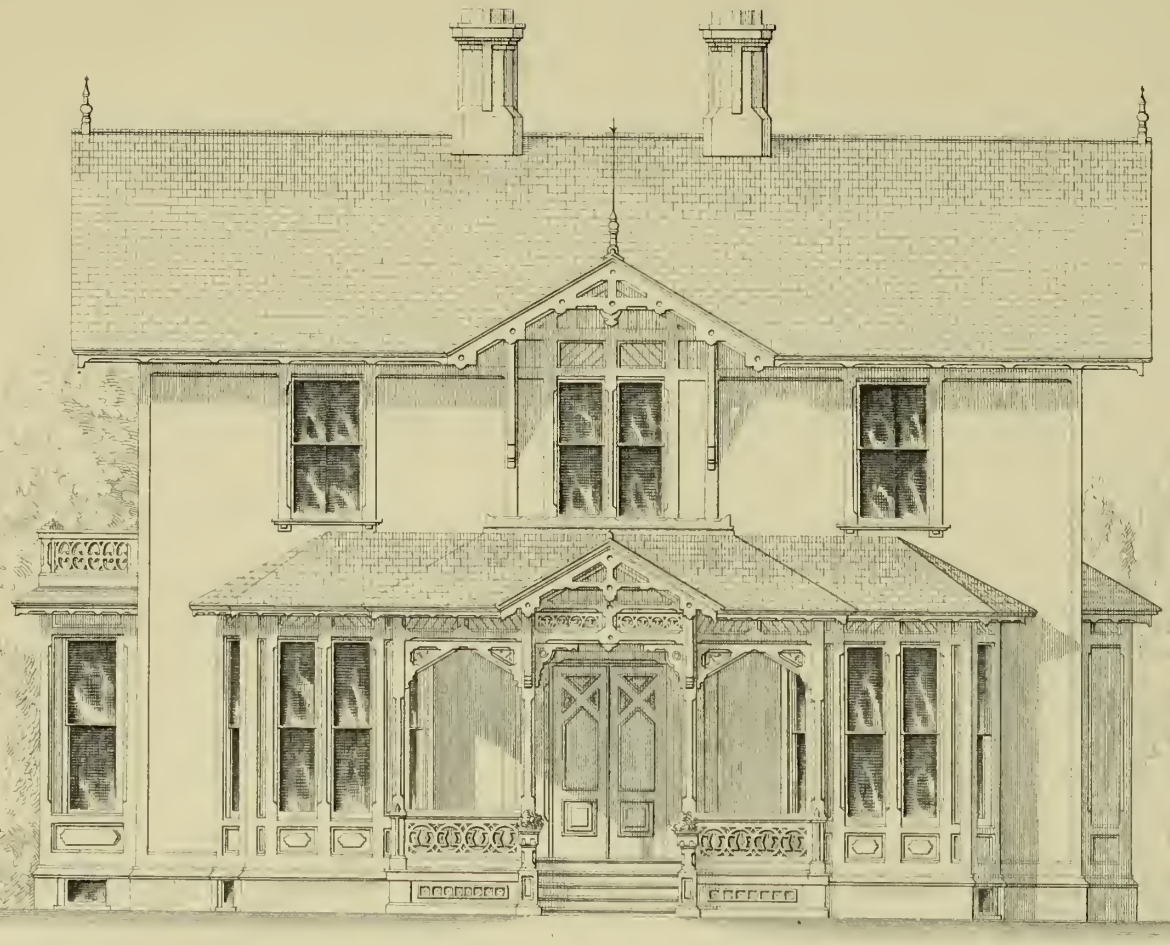
DOOR DETAILS.



FINISH FOR GABLE OVER DOORS.

Design No. 15.

Plate No. 61.

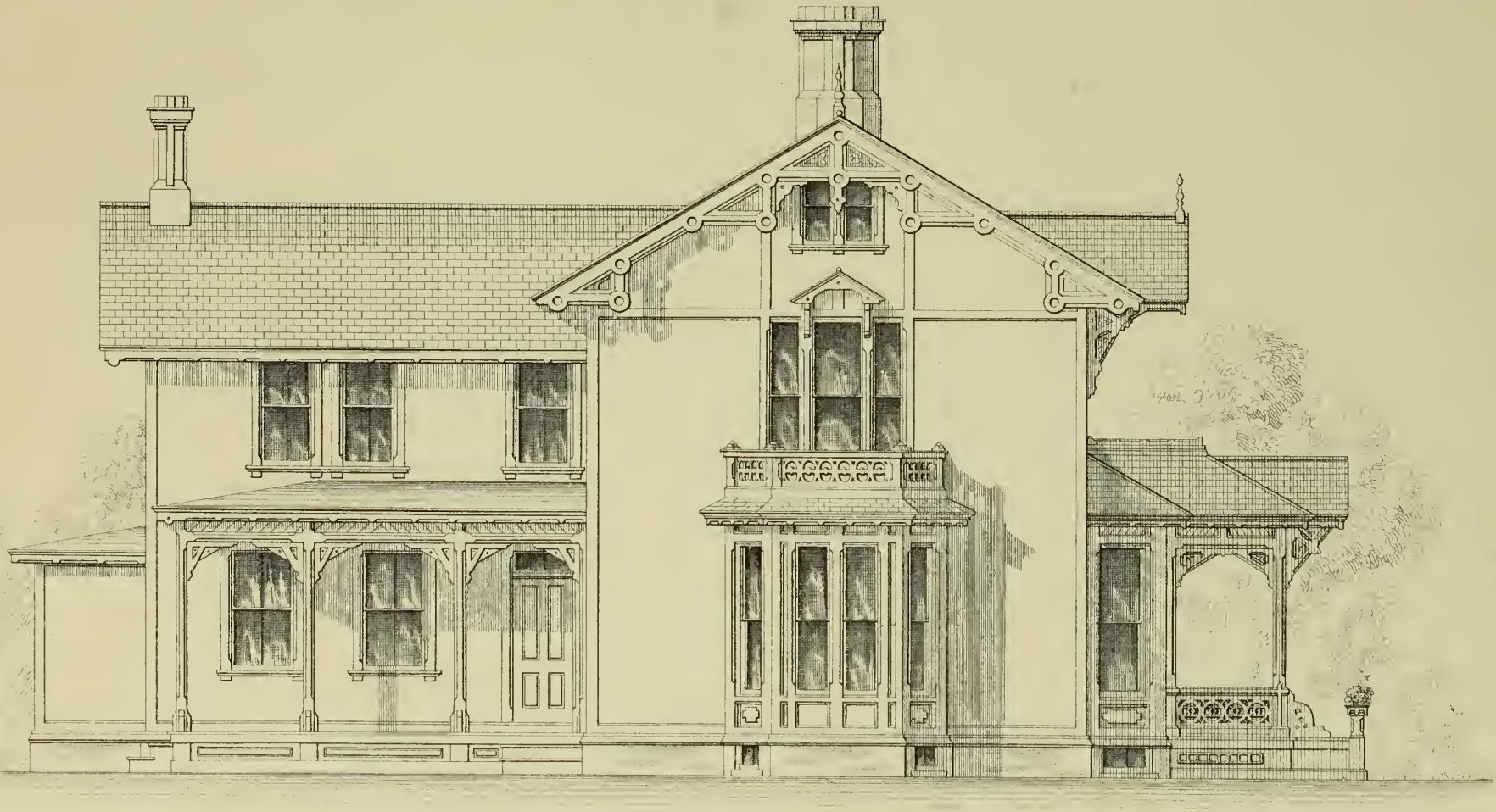


FRONT ELEVATION.

SCALE. 8 Feet to One Inch.

Design No. 15.

Plate No. 62.



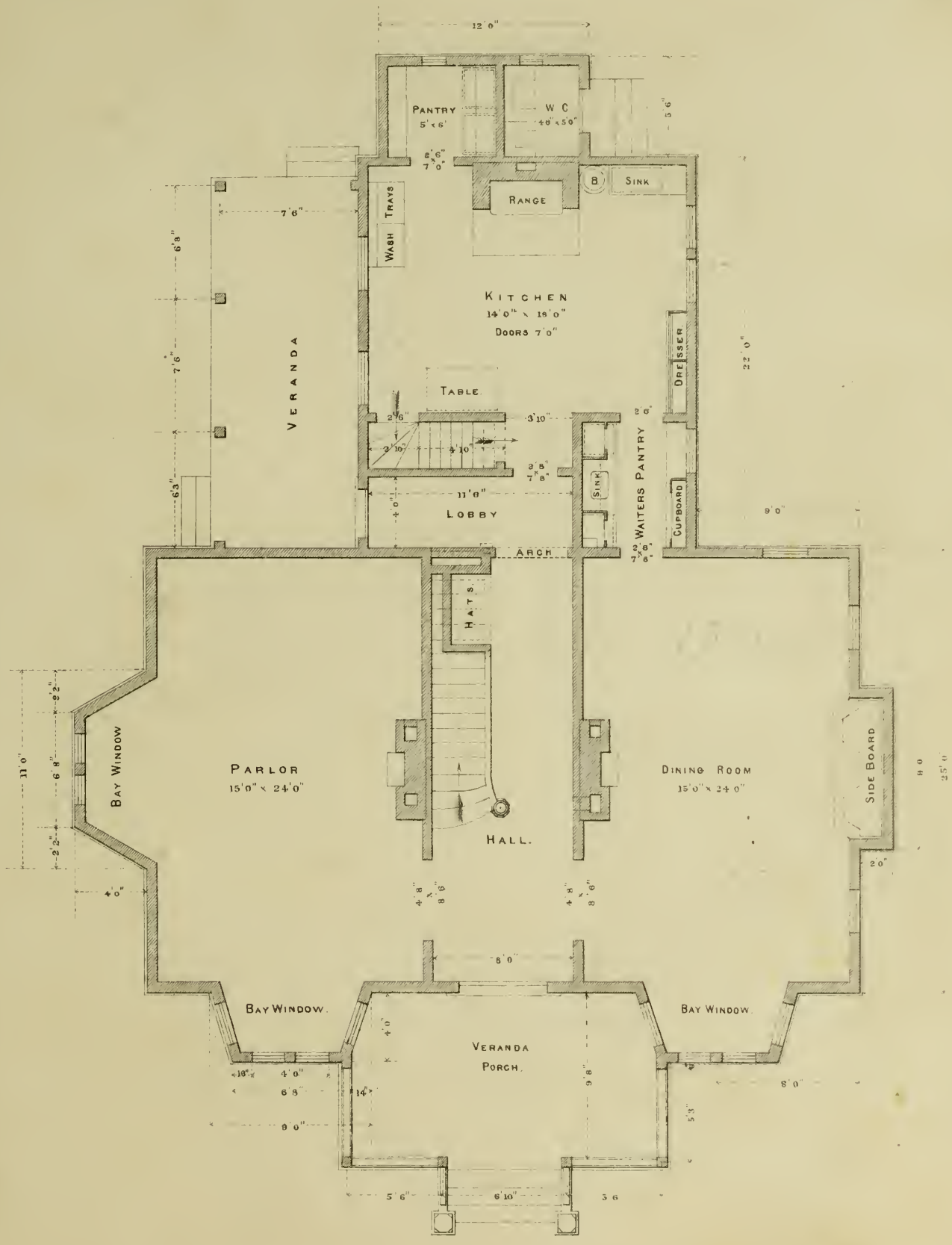
SIDE ELEVATION.

SCALE. 8 Feet to One Inch.

Engr & print by KORFF BROTHERS 54 William St N.Y.

Design No. 15.

Plate No. 63.

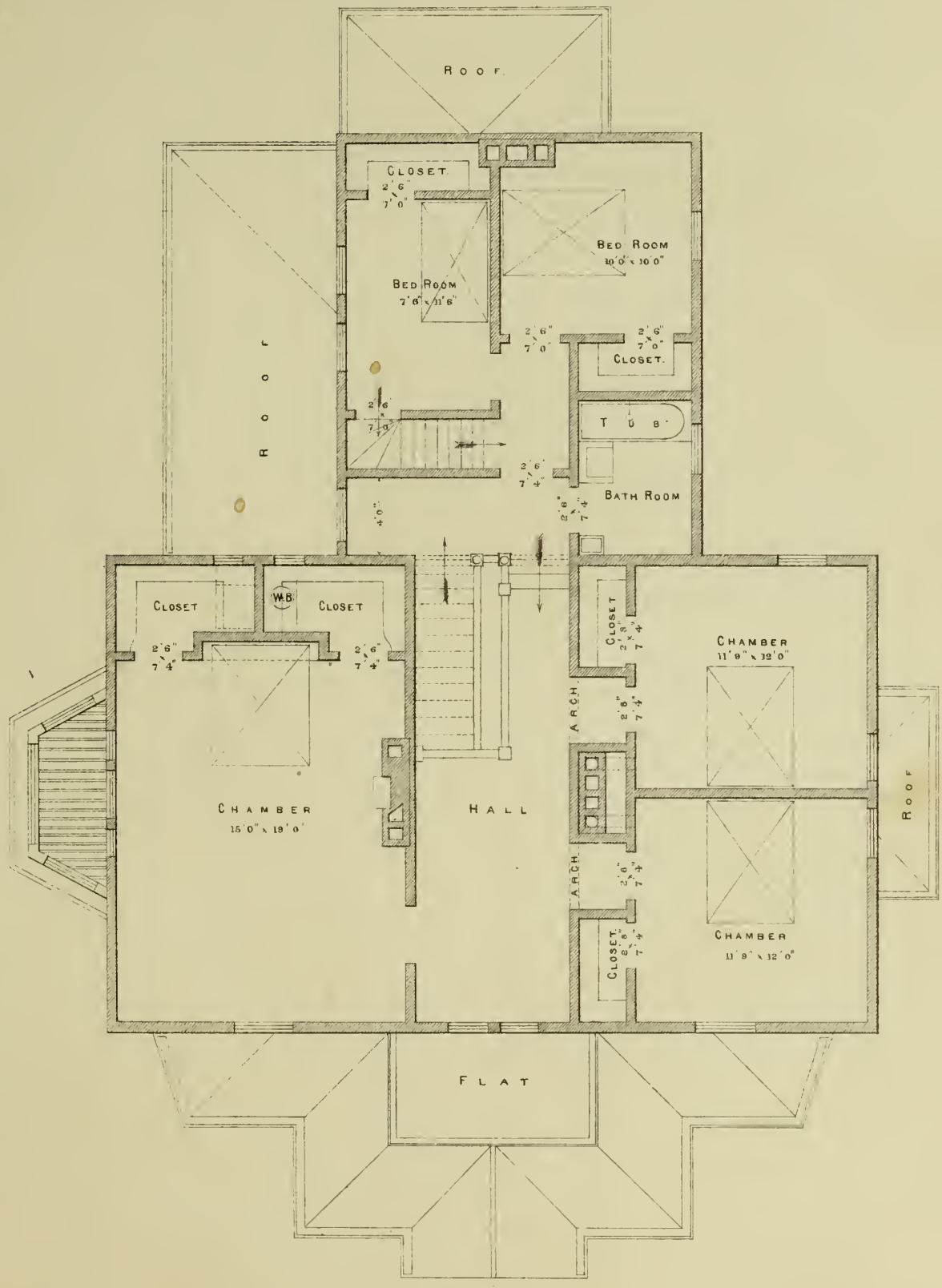


GROUND PLAN.

SCALE. 8 Feet to One Inch.

Design No. 15.

Plate No. 64.



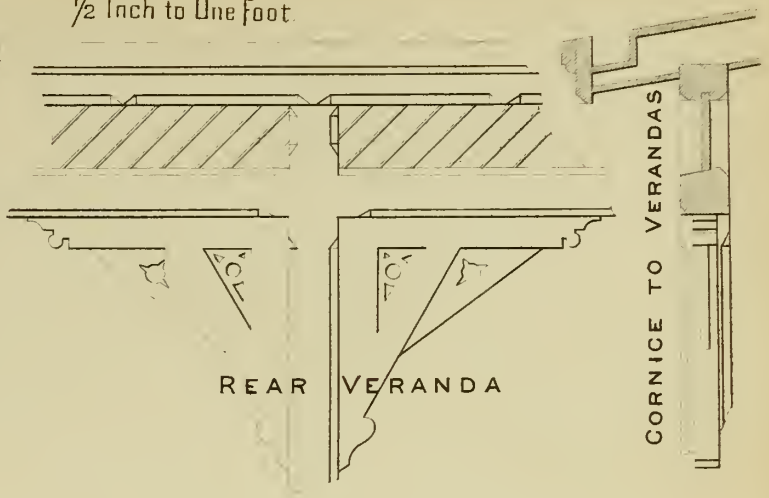
CHAMBER PLAN.

SCALE. 8 Feet to One Inch.

Design No. 15. DETAILS Plate No. 65.

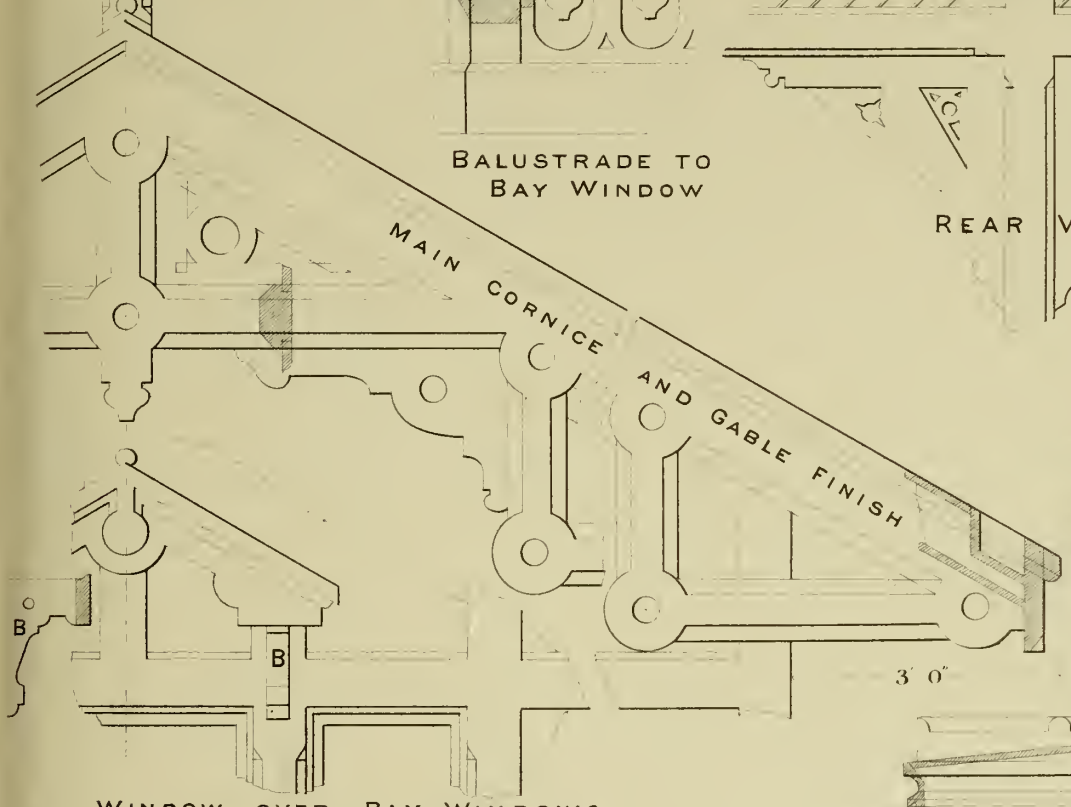
½ Inch to One Foot

BALUSTRADE TO BAY WINDOW



REAR VERANDA

CORNICE TO VERANDAS



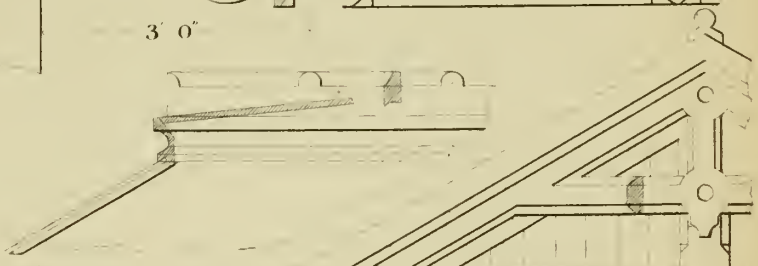
MAIN CORNICE AND GABLE FINISH

B B

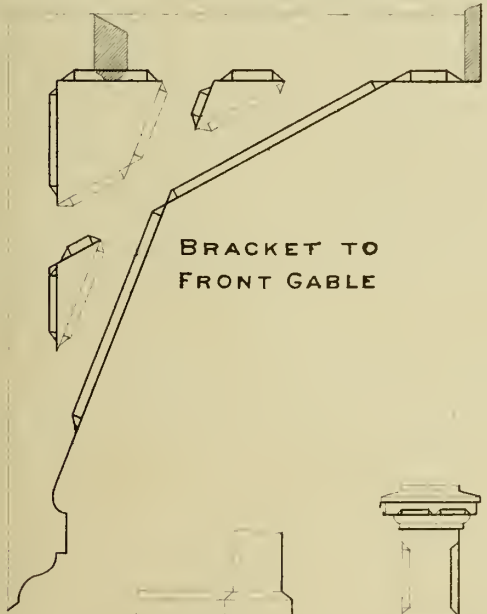
3' 0"

MAIN CORNICE

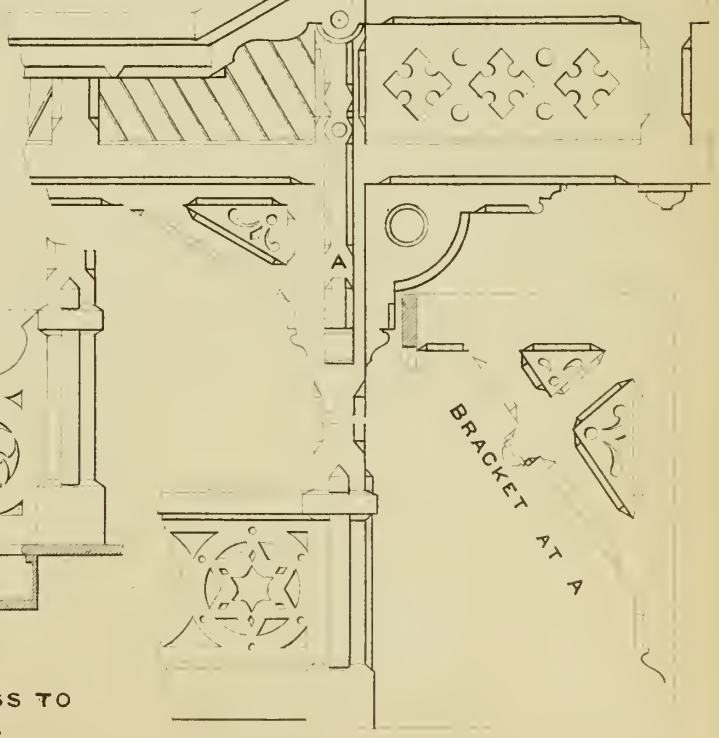
WINDOW OVER BAY WINDOWS



CORNICE TO FLAT

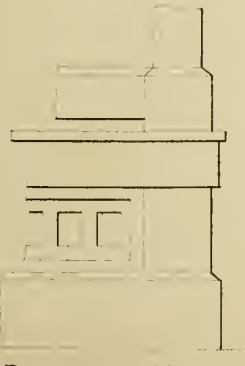


BRACKET TO FRONT GABLE

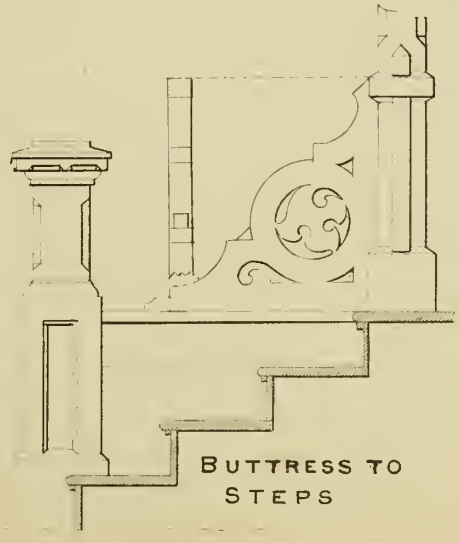


A

BRACKET AT A

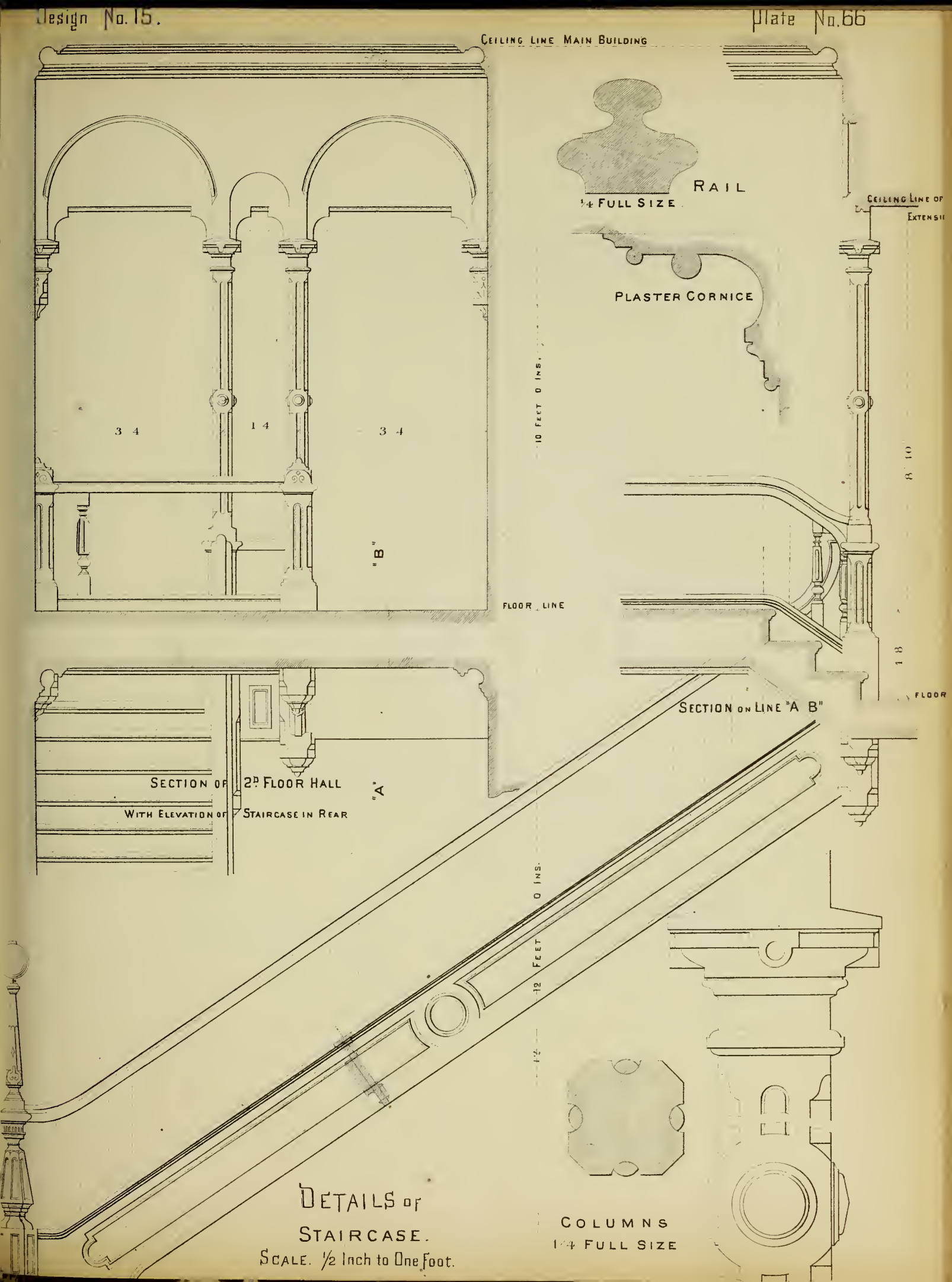


PLINTH TO VERANDA



BUTTRESS TO STEPS

DETAILS OF VERANDA

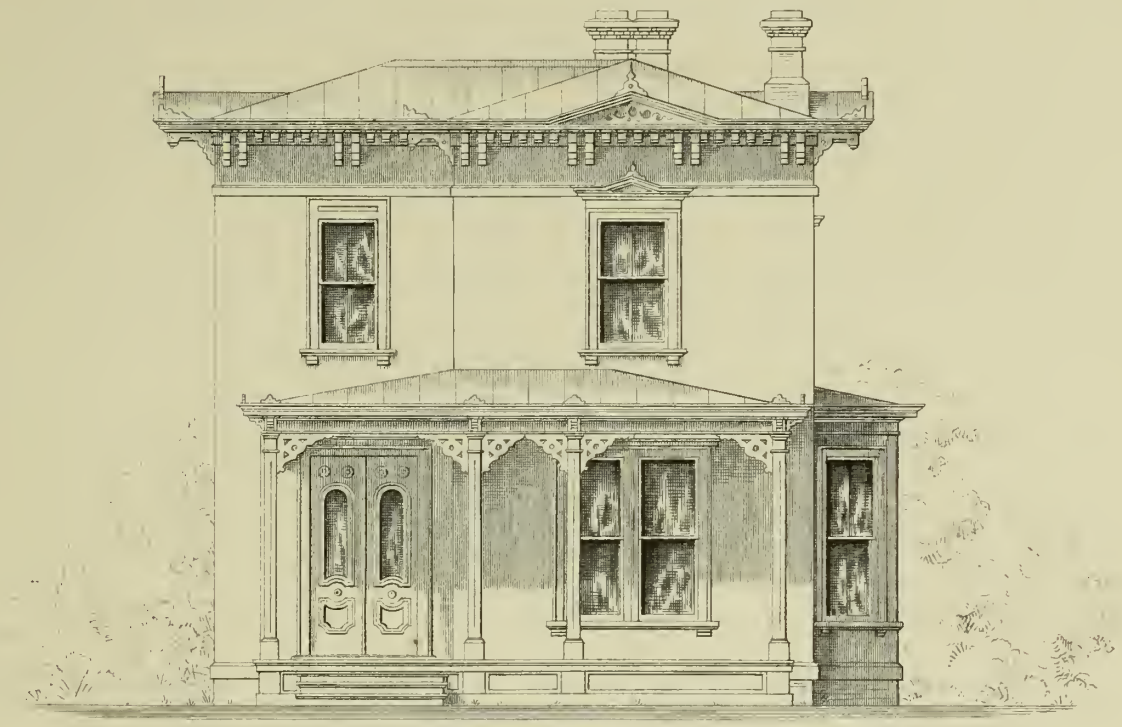


Details of Staircase.

Scale. ½ Inch to One Foot.

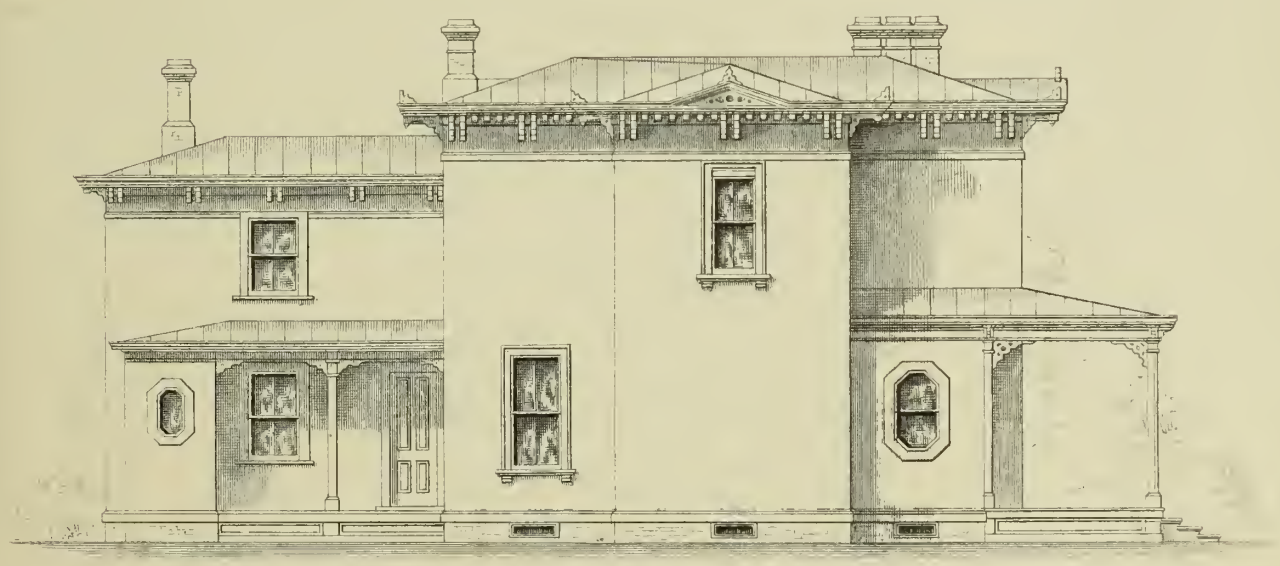
Design No. 16

Plate No. 67.



FRONT ELEVATION.

SCALE 0 1/8 INCH TO ONE FOOT.



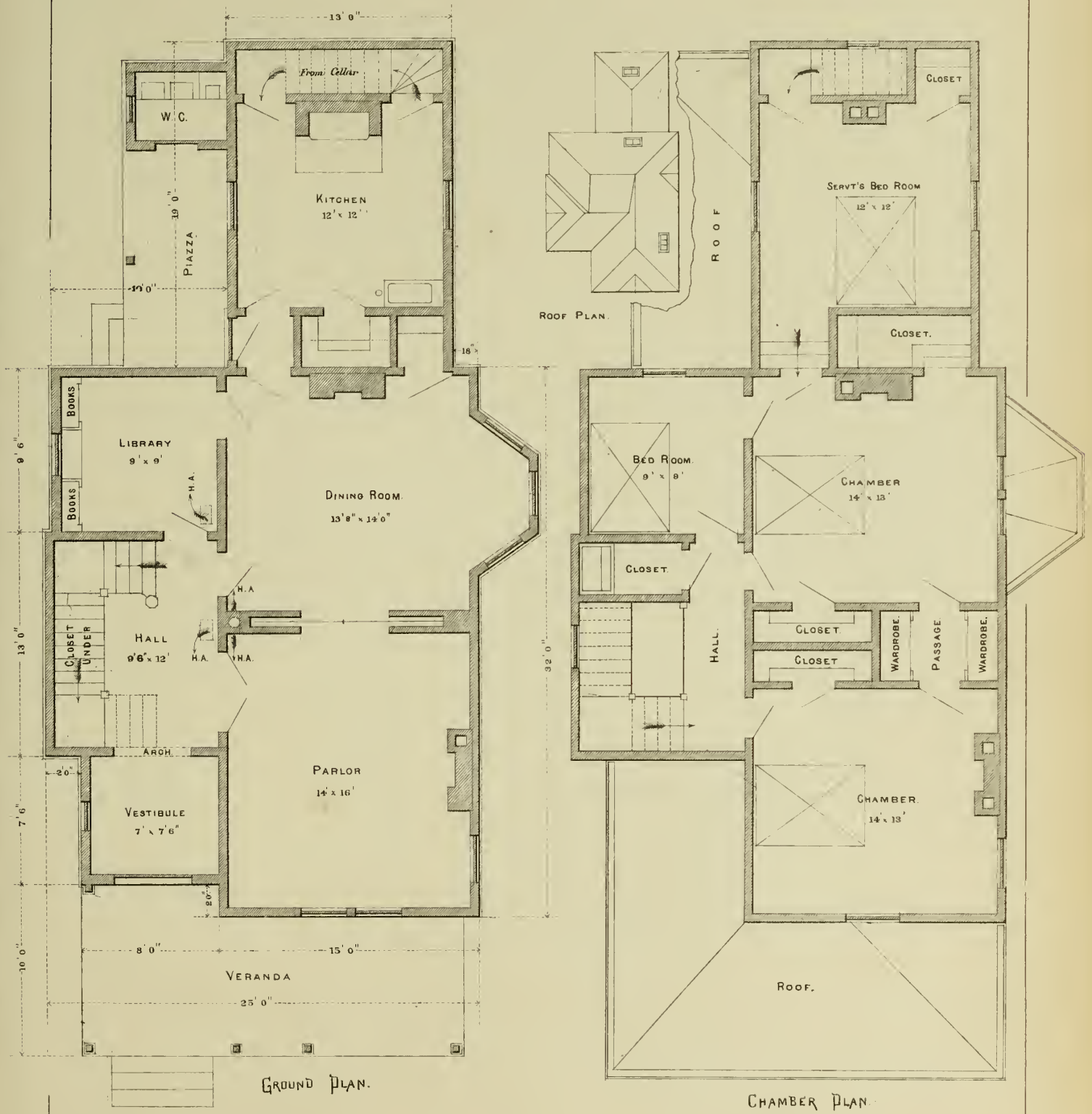
SIDE ELEVATION.

SCALE. 0 3/32 INCH TO ONE FOOT.

1ST	STORY	(MAIN BUILDING)	10'0" HIGH.
2D	"	"	9'0" "
1ST	"	(EXTENSION)	8'6" "
2D	"	"	8'0" "

Design No. 16

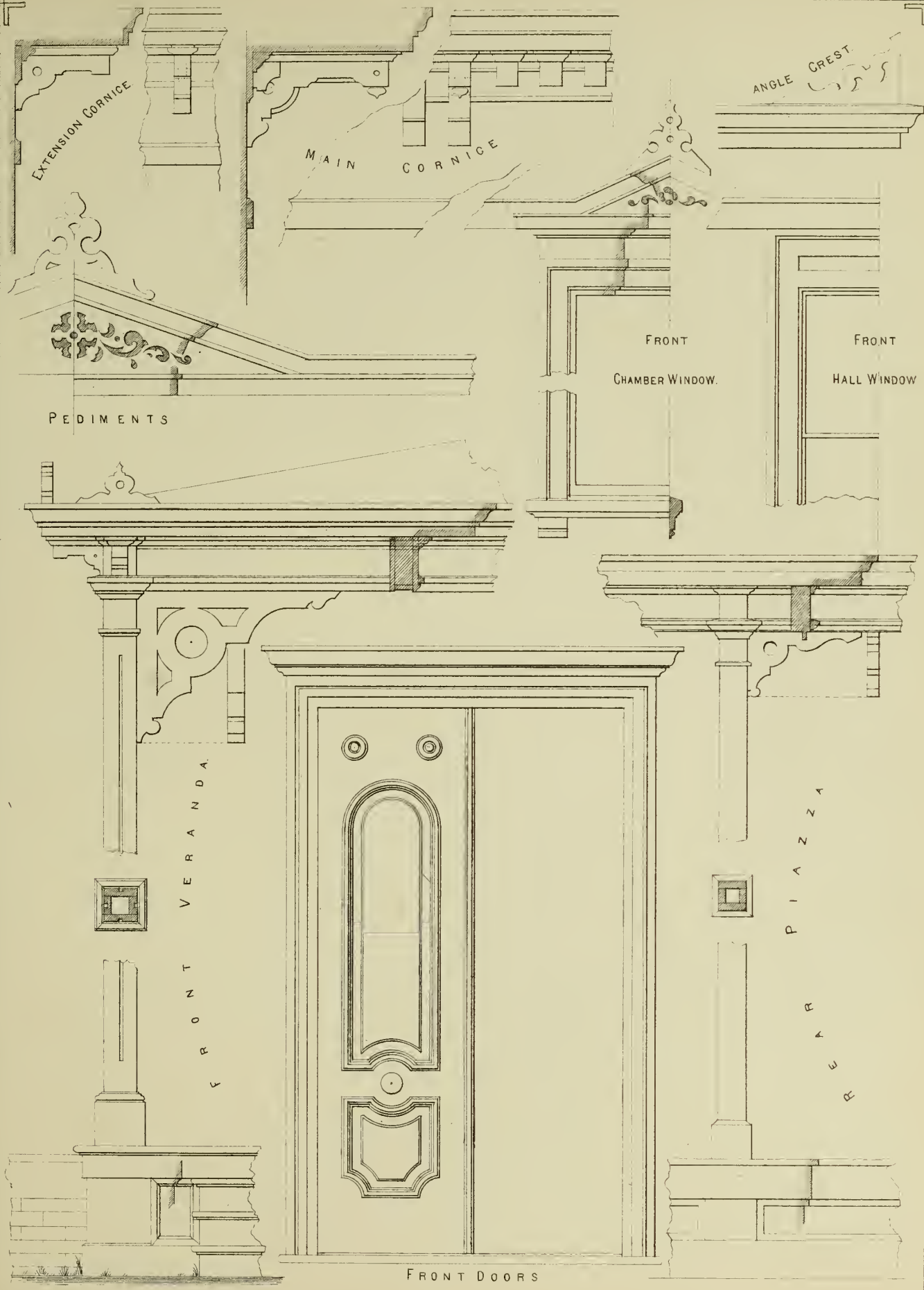
Plate No. 68.



SCALE. ⅛ Inch to One foot.

Design No. 16

Plate No. 69.

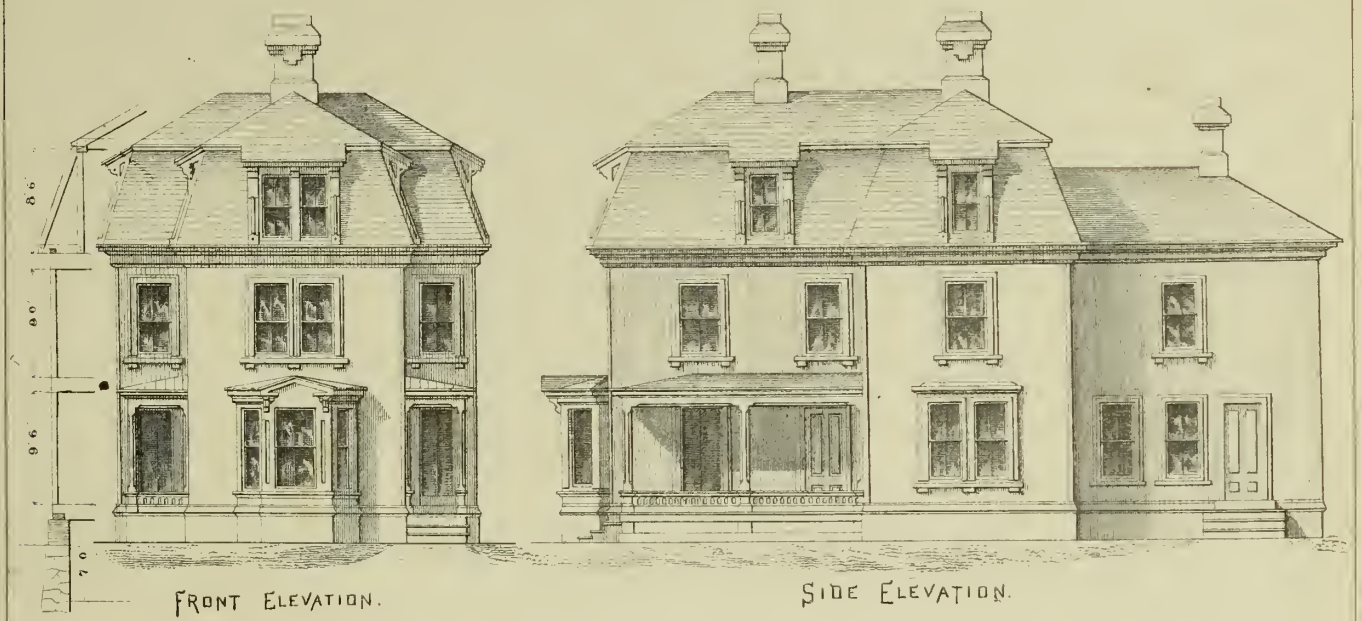


SCALE. ½ Inch to One Foot.

Design No. 17.

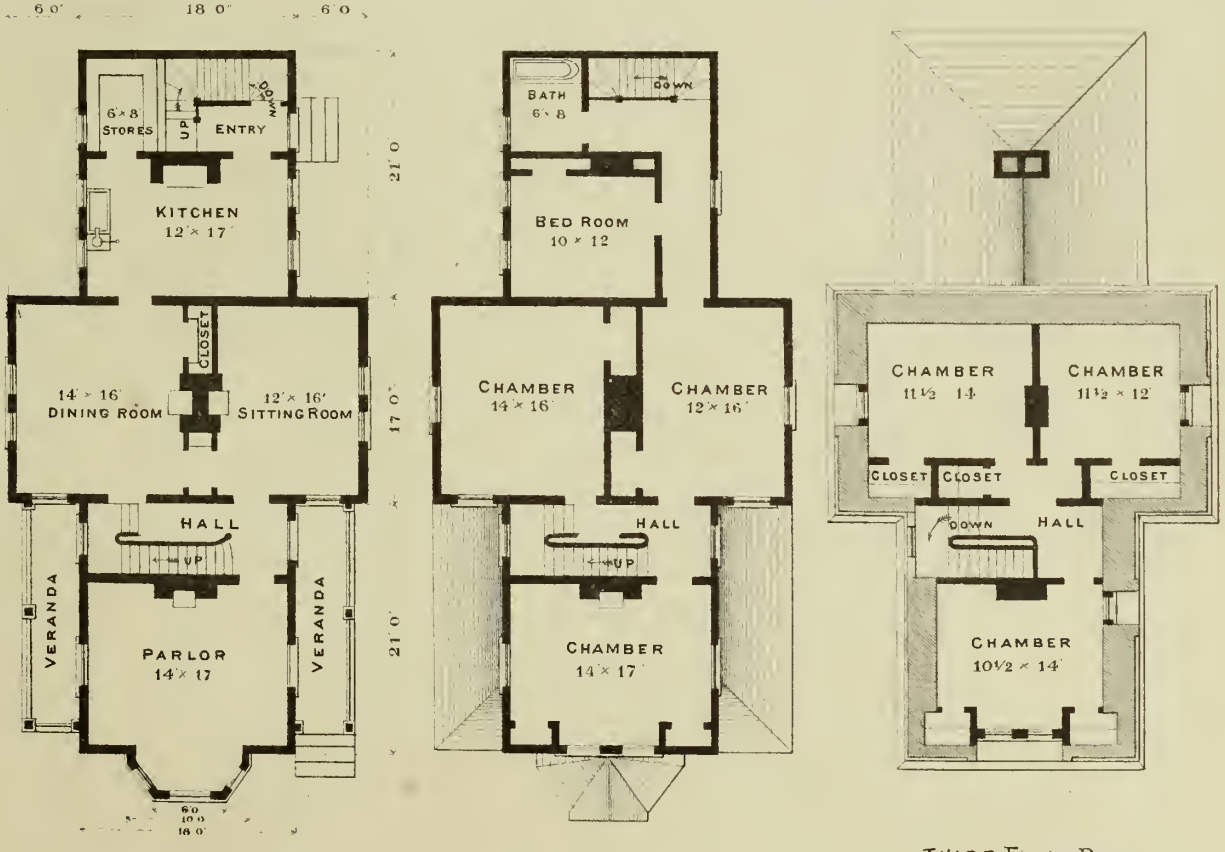
Plate No. 70.

1/16 Inch to One Foot.



FRONT ELEVATION.

SIDE ELEVATION.



FIRST FLOOR PLAN

SECOND FLOOR PLAN

THIRD FLOOR PLAN

DESIGN No. 17.

MASONS' SPECIFICATION.

EXCAVATION. Excavate for the cellar walls to the depth of 5 feet below the finished grade, for all the drains, to the depth of 3 feet, and do all the excavating required for the cistern and cess pool.

After the walls have been built, and the drains and other works specified have been set, fill up and grade off with the earth excavated, as may be directed.

STONE WORK. Lay the cellar walls 20 inches thick, $5\frac{1}{2}$ feet high, with good large-sized building stone, laid in the best lime mortar. Start from a good firm foundation 6 inches below the finished level of the cellar bottom.

Point full with best mortar at the completion.

Level the cellar bottom and grout and cement it in the best manner.

CESS POOL Build a cess pool 3 feet in diameter and 6 feet deep, as directed, with good building stone laid dry. Cover with sound chestnut plank 4 inches thick.

PIERS. Set proper stone foundations for the brick piers herein specified, those on the outside set 3 feet deep.

CUT STONE. Provide and set blue stone sills, 4×6 inches, for all the cellar windows, also, dressed blue stone hearth and lintel for the kitchen fire-place.

DRAINS. Lay one 4-inch drain from beneath the sink in the kitchen to the cess pool, and one of the same calibre from the cistern to the cess pool, to serve as an overflow pipe. Both of the above to be properly trapped.

Lay 4-inch drain pipes from the leaders to the cistern.

All of the above to be of vitrified earthen pipe, with all angle pieces required, set with cemented joints, and connected with cistern, cess pool, &c., in the best manner.

BRICK WORK.

UNDERPINNING. Lay the underpinning walls 2 feet high and 12 inches thick.

Set window frames as required by the design.

PIERS. Build three 12-inch square brick piers to carry the timbers in the first floor, and four 8-inch square piers to carry the veranda floors.

Use best cement for the external piers.

CHIMNEYS. Build the chimneys as required by the design. Faced work in the kitchen fire-place of selected bricks, with flushed joints, rubbed. Grate fire-places elsewhere as the plans show. Flues 8×12 inches, pargetted throughout. Top out the chimneys above the roof as required by the design, using selected bricks, with best cement, and flush and rub the joints.

Furnish and set three marble mantels, with Dixon's low down grates, of the value of —— dollars each, and one range, of medium size and of approved manufacture.

Turn trimmer arches for all the hearths.

CISTERN. Build a cistern at the rear of the house as directed, 8 feet in diameter and 6 feet deep in the clear, the bottom of the cistern being $8\frac{1}{2}$ feet below the finished surface. Build the vertical walls, and the top (domical in form) 4 inches thick. Man-hole 2 feet in diameter, inside, and carried up to the surface.

Grout and cement the bottom in the best manner. Lay all the brick

work with cement, and finish all the interior, as well as the outside of the domed top and the man-hole, with two coats of best cement.

Cover the man-hole with 3-inch stone slab and rim, the former fitted with iron ring and staple.

BRICK FILLING. Fill in the frame work of the exterior walls their entire height with good pale bricks, set on edge, flush with the inner edge of the studding.

MATERIALS FOR BRICK WORK.

Except for the filling in, use for all the brick work specified herein good hard-burned weather bricks.

Select the best of them for exposed face work, and, except as otherwise specified herein, lay all bricks with best lime and sand mortar.

LATHING AND PLASTERING.

Lath the ceilings, the walls of the 3d story, and the partitions throughout, with good, sound laths, and plaster with one good, heavy coat of hair mortar, finished with "hard finish" white coat.

Float, smooth and finish the plastering throughout in the best manner.

DEAFENING. Deafen the first floor by grouting between the beams.

Limewash the whole interior of the cellar, including the bottom of the first floor, two good coats.

DESIGN No. 17.

CARPENTERS' SPECIFICATION.

FRAME.

Furnish all timber required to execute the framing, according to the design. Flooring beams to be of spruce; remainder of the timber of pine or hemlock, and all sound and square edged.

Sizes of the parts as follows:

Sills, 3×8 inches, halved at the angles and well nailed.

Flooring beams, 2×9 inches.

Trimmers and headers, 4×9 inches.

Girders carrying ends of beams, in first floor, 6×9 inches.

Corner studs, 4×4 inches.

Window and door studs, 3×4 inches, and remaining wall studs, 2×4 inches.

Plates, 3×4 inches.

Rafters for Mansard roof, 2×6 inches; for upper roof, 2×8 inches.

Ceiling pieces for third story, 2×6 inches.

Sills for veranda floors, 4×6 inches.

Joists, 2×6 inches.

Veranda plates, 3×6 inches.

Rafters, 3×5 inches.

Execute the framing in the manner commonly known as "Balloon Framing," and in the most substantial and skillful manner.

Bridge all the flooring beams with one row of 1 × 3 crossed bridging

Double the beams that carry partitions.

EXTERIOR COVERING.

WALLS. Cover all the vertical walls with pine sheathing, planed $\frac{7}{8}$-inch thick, matched, and set in widths of not more than 5 inches.

ROOFS. Cover the roofs with sound matched roofing boards. Select the best of them for the verandah roofs and plain the under side of them for the latter, and bead and scratch bead.

TIN WORK. Line the gutters throughout, extending the lining up at least 6 inches under the slates.

Finish the veranda and bay window roofs with tin, put on with standing lock joints, and turned up at least 2 inches behind the siding. Carry the tin work of the bay window roof up and back of the siding 6 inches, and make weather-tight.

Put up 4 leaders of $3\frac{1}{2}$ inches calibre on the walls of the house. Also, 1 leader of $2\frac{1}{2}$ inches calibre on each of the verandas, and 1 of the same size on the bay window. All of these leaders to connect at the top with the gutters, and at the bottom with the drains, and to be properly secured to the walls with metallic fastenings.

Use the best quality of charcoal roofing tin for all of the above specified tin work, and paint it all with two good coats of best metallic roofing paint.

SLATING. Finish all the roofs, not required above to be tinned, with good sound black or purple slates, over stout roof felting, the slates laid so that each course shall lap the second course below it $2\frac{1}{2}$ inches.

Flash the hips, valleys, ridges and chimneys with stout zinc, and make all the roof weather proof.

SCUTTLE. Set glazed scuttle two by three feet in the roof as directed, and hang it with wrought iron hinges and hasp.

EXTERIOR FINISH. Put up the cornices, window and door finish, corner beads, and water-table, as required by the design. (See "cornice, corner bead and water-table" in Plate 82.) Case up gutters in the cornices. Plane and bead the timber in the roof of the verandas. Make the veranda railings of $1\frac{1}{4}$-inch pine, cut as shown, and with proper cap and plinth. Veranda floors of $1\frac{1}{4}$-inch pine, planed, matched, set in widths of four inches, with leaded joints, and blind nailed.

Outside steps of similar workmanship. Build the bay-window as required by the design. Brackets for pediment three inches thick.

Water-table $1\frac{1}{2}$ inches thick. Lip the top edge to connect with the siding. Band mouldings for windows and doors three inches wide, $1\frac{1}{4}$ inches thick, with coved inner edge. Cover the top band with metal or wooden cap so as to make it weather proof.

Window sills two and one-half inches thick.

Dormer windows as the design requires. Brackets and finish at the sides 6 inches on the face, the latter raised 3 inches from the plane of the roof where it follows the line of the roof, and finished with $2\frac{1}{2}$-inch bead. Four inches margin between the edge of the window frame and the side finish. Double window sill, the lower one extending to the edge of the gutter, and covered with tin, as required for the roofs.

BLINDS. Provide outside blinds for all the windows in the first and second stories, and hang them with approved hinges and fastenings. Blinds to be $1\frac{1}{4}$ inches thick, four panels to each window, with rolling shades.

Do any and all other finishing work required to carry out the design as shown by the drawings.

WINDOWS.

CELLAR. Cellar window frames, six in number, of plank, rabbeted.

Sashes $1\frac{1}{2}$ inches thick, hung at the top with iron butts, and fastened open and shut with strong iron buttons.

FRAMES. Above the cellar, adapted for hanging the sashes with cords and weights.

SASHES. One and a half inches thick, finished, two sashes to the window.

GLASS. For all the windows throughout, of the sizes given on the drawings, and of the best quality of French sheet glass.

HANGING. Double hang all the sashes with 2-inch best axle pulleys, iron weights, and best hemp sash cord, and put on spring centre fastenings of approved pattern, with white porcelain knobs. (French windows, opening on veranda, specified under the head of "Doors.")

INTERIOR.

FLOORS. Lay the floors throughout with thoroughly seasoned, perfectly sound flooring, $1\frac{1}{4}$ inches thick, set in widths not more than 5 inches to any one piece, planed, matched, and blind nailed.

Smooth off the floors after laying where required to reduce them to a uniform surface.

Saddles for all the doors of hard wood.

Case up an opening in the ceiling of the third story, in one of the closets, set a suitable cleated door, provide step-ladder communicating with it, and lay, with sound boards, a floor equivalent to ten feet square around the opening.

DEAFENING. Furnish materials and do all carpenter's work required in deafening the first floor.

STAIRS. Build the cellar stairs with 2-inch plank string pieces, and $1\frac{1}{2}$-inch treads, planed and grooved together.

Build the rear stairs, from the first to the second story, with $1\frac{1}{4}$-inch risers and 1-inch treads. Enclose them with a partition of $1\frac{1}{4}$-inch planed, matched and beaded sheathing, carried down so as to enclose the cellar stairway, and carried up three feet above the second floor, surmounted with a $2\frac{1}{2}$-inch bead.

Build the principal stairs, from the first to the third story, with $1\frac{1}{4}$-inch treads, finished with scotia and torus nosing, and 1-inch risers.

Set a 6-inch fancy turned newel at the start, and carry up a continued $2\frac{1}{2}$ by 4-inch moulded rail, on plain turned balusters $1\frac{1}{2}$-inch in diameter.

The post, rail, and balusters to be of the best seasoned black walnut rubbed down smooth, filled with oil, and finished with shellac.

PARTITIONS. Set the partitions throughout as required by the plans. Studs 2 by 4 inches, set 16 inches on centres.

Studs for door jambs and projecting angles set double.

FIRRING Firr down the ceilings, excepting that of the cellar, with 1 by 2 firring strips, set 16 inches on centres.

GROUNDS. Set grounds around the window and door openings, and at the top of the base and skirting, to terminate the plastering.

Finish all projecting angles with corner beads.

DOORS.

Make the front outside door 2 inches thick, with raised mouldings, and of the size given on the drawings. Rear entrance door $1\frac{3}{4}$ inches thick. Inside door for the first story 2 feet 10 inches by 7 feet, and for the second and third stories 2 feet 8 inches by 6 feet 10 inches, four panels to the door $1\frac{1}{2}$ inches thick, with beveled stiles and rails.

Glaze the two upper panels of the rear entrance door with best French sheet glass, and those of the front door with ornamental enamelled glass.

FRENCH WINDOWS. Sashes for French windows, which include all the windows opening on the verandas, $1\frac{3}{4}$ inches thick. Stiles and top rail $2\frac{1}{2}$ inches wide, meeting stile 4 inches wide, and bottom rail 6 inches wide.

Glaze with the best French sheet glass, three panes to each half window.

HINGING. Hang the doors and the French windows with loose jointed iron butts of proper size.

Put in, in the French windows, approved locks, handles, and flush brass bolts.

Fasten the doors throughout with mortise locks and latches of best manufacture, with brass bolts and facings, and white porcelain furniture.

BELL. Hang one bell in the kitchen, connected with the front door by copper wires in zinc tubes. Bell of the gong pattern.

WINDOW AND DOOR FINISH. Trim the windows and doors throughout with plain casings from 5 to $6\frac{1}{2}$ inches wide, with quarter round inner edge.

Finish the windows in the dining-room and sitting-room with framed and moulded panel backs, and the remaining windows with moulded stool pieces and aprons.

BASE. Finish the rooms in the first story, not required to be wainscotted, with base $9\frac{1}{2}$ inches high, all the rooms in the second story with base 9 inches high, those in the third story with base 8 inches high. Cove the upper edge of the base in the first story, and bevel it in the second and third stories one-half inch.

WAINSCOT. Sheath up the walls of the kitchen, entry and pantry to the height of 3 feet from the floor, with pine sheathing, planed, matched, beaded, put up vertically in widths of 3 inches, and finished with neat moulded cap.

PANTRY. Put up a shelf 20 inches wide across the end of the pantry, and fit up cupboards with shelves and cleated doors beneath it. Continue this shelf

along the sides of the pantry 14 inches wide, and put up three other shelves extending around the walls, and from 9 to 12 inches wide.

China Closet. Fit up the china closet with four shelves and three drawers, the latter 10 inches deep.

Shelves. Put up, on beaded cleats, one top shelf in each of the remaining closets, and double iron clothes hooks in closets and entries as directed.

Mantels. Build two wooden mantels, of the value of dollars each, for the chambers over the dining-room and sitting-room.

Sink. Furnish and set one cast-iron sink, 20 by 36 by 6 inches, in the kitchen, as by the plan. Case up a cupboard under the same, with materials similar to those required for the wainscot, and set cleated door, properly hung and fastened.

Pump. Furnish and set a medium sized cast-iron pump next the sink, as required by the plan. Connect with the cistern by means of a $1\frac{1}{2}$-inch lead supply pipe. Put in a 2-inch lead waste pipe from the sink to the drain leading to the cess-pool.

Bath-Tub. Furnish and set a copper planished, medium sized bath-tub, as by the plan. Case up about it with pine sheathing, as for the kitchen wainscot, and carry a $1\frac{1}{2}$-inch lead waste pipe from the tub to the drain leading to the cesspool.

PAINTING.

Paint all the exterior and interior wood-work, the chimney tops, and the faced brick-work about the kitchen fire-place, two good coats of best American white lead and pure linseed oil. Paint the outside blinds three coats. Tint as directed.

Properly putty all nail holes and other imperfections of the wood-work requiring it, and size all knots with gum shellac before painting.

MATERIALS.

For the blinds, doors and sashes throughout, use the best clear white pine lumber.

For all the other wood finish, except where specified to the contrary herein, use white pine lumber, free from shakes, and large or bad knots.

All finishing materials to be perfectly sound and thoroughly seasoned.

The drawings herein referred to are to be considered as forming part of this specification, reference being made to them for the height of stories, and other dimensions, as well as for the general arrangement. And the contractor is to furnish all of the materials, and do all the labor required to complete the design, according to the evident intent of the drawings referred to and this specification; both the materials and the workmanship to be satisfactory to the Owner or his agent.

APPROVED FORM OF CONTRACT IN GENERAL USE.

Articles of Agreement, made this day of in the year one thousand eight hundred and

Between

of the First Part, and

of the Second Part.

First. The said part of the second part do hereby for heirs, executors and administrators, covenant, promise and agree to and with the said part of the first part, executors, administrators or assigns, that the said part of the second part executors or administrators, shall and will, for the consideration hereinafter mentioned, on or before the well and sufficiently erect and finish the new Building

agreeably to the Drawings and Specifications made by and signed by the said parties and hereunto annexed, within the time aforesaid, in a good, workmanlike and substantial manner, to the satisfaction, and under the direction of the said to be testified by a writing or certificate under the hand of the said and also shall and will find and provide such good, proper and sufficient materials, of all kinds whatsoever, as shall be proper and sufficient for the completing and finishing all the

and other works of the said Building mentioned in the Specification for the sum of

And the said part of the first part, do hereby, for heirs, executors and administrators, covenant, promise and agree, to and with the said part of the second part, executors and administrators, that the said part of the first part executors or administrators, shall and will, in consideration of the covenants and agreements being strictly performed and kept by the said part of the second part, as specified, well and truly pay, or cause to be paid, unto the said part of the second part executors, administrators or assigns, the sum of

Dollars, lawful money of the United States of America, in manner following:

Provided, that in each of the said cases, a certificate shall be obtained and signed by the said

And it is hereby further agreed by and between the said Parties:

First. The Specifications and Drawings are intended to co-operate, so that any works exhibited in the Drawings, and not mentioned in the Specifications, or *vice versa*, are to be executed the same as if they were mentioned in the Specifications and set forth in the Drawings, to the true meaning and intention of the said Drawings and Specifications, without any extra charge whatsoever.

Second. The Contractor, at his own proper cost and charges, is to provide all manner of materials and labor, scaffolding, implements, moulds, models, and cartage of every description, for the due performance of the several erections.

Third. Should the Owner, at any time during the progress of the said Building request any alteration, deviation, additions or omissions from the said contract, he shall be at liberty to do so, and the same shall in no way affect or make void the contract, but will be added to or deducted from the amount of the contract, as the case may be, by a fair and reasonable valuation.

Fourth. Should the Contractor, at any time during the progress of the said work, refuse or neglect to supply a sufficiency of materials and workmen, the Owner shall have the power to provide materials and workmen, after three days notice in writing being given, to finish the said work, and the expenses shall be deducted from the amount of the contract.

Fifth. Should any dispute arise respecting the true construction or meaning of the Drawings or Specifications, the same shall be decided by and decision shall be final and conclusive; but should any dispute arise respecting the true value of the extra work, or of the works omitted, the same shall be valued by two competent persons—one employed by the Owner, and the other by the Contractor—and those two shall have power to name an umpire, whose decision shall be binding on all parties.

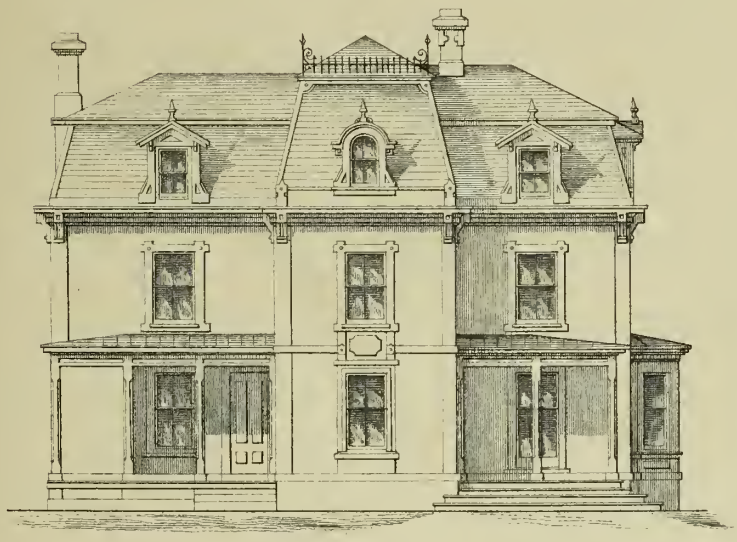
Sixth. The Owner shall not, in any manner, be answerable or accountable for any loss or damage that shall or may happen to the said works, or any part or parts thereof respectively, or for any of the materials or other things used and employed in finishing and completing the same (loss or damage by fire excepted).

In Witness whereof, the said parties to these presents have hereunto set their hands and seals, the day and year above written.

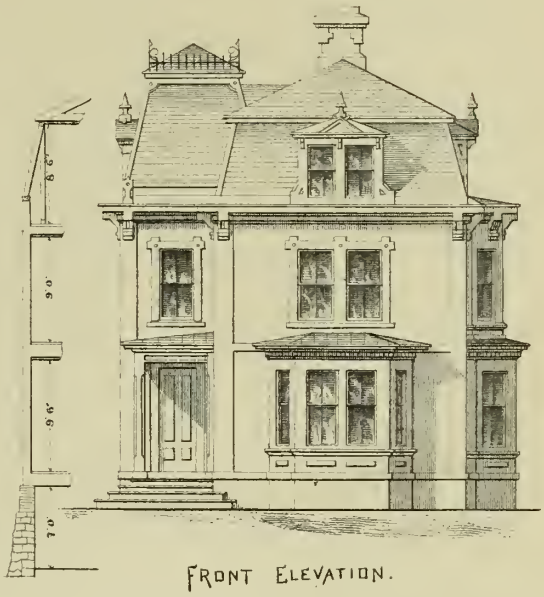
Five CENT Revenue Stamp.

Design No. 18.

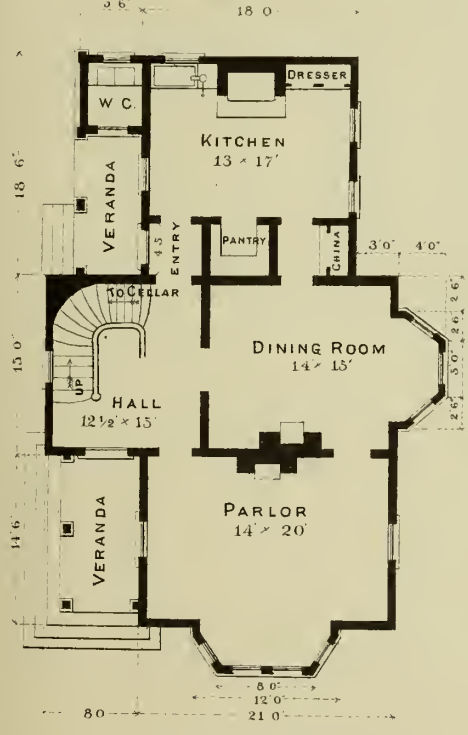
Plate No. 71.



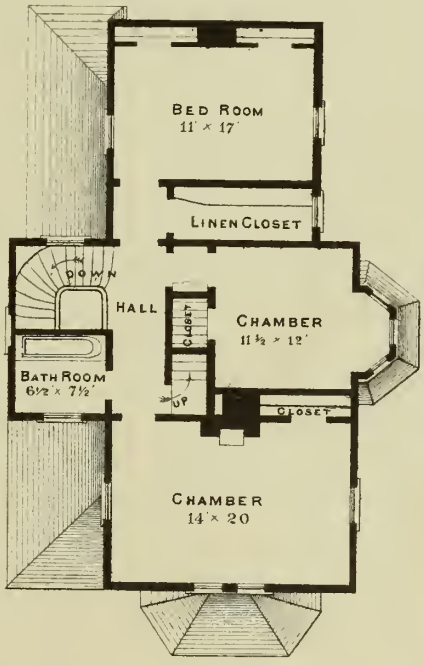
SIDE ELEVATION.



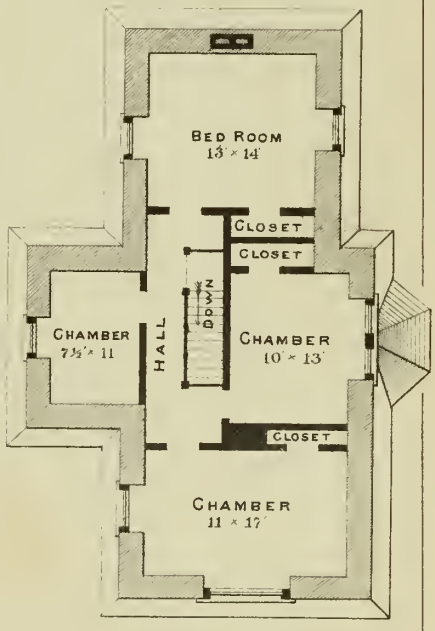
FRONT ELEVATION.



FIRST FLOOR PLAN



SECOND FLOOR PLAN

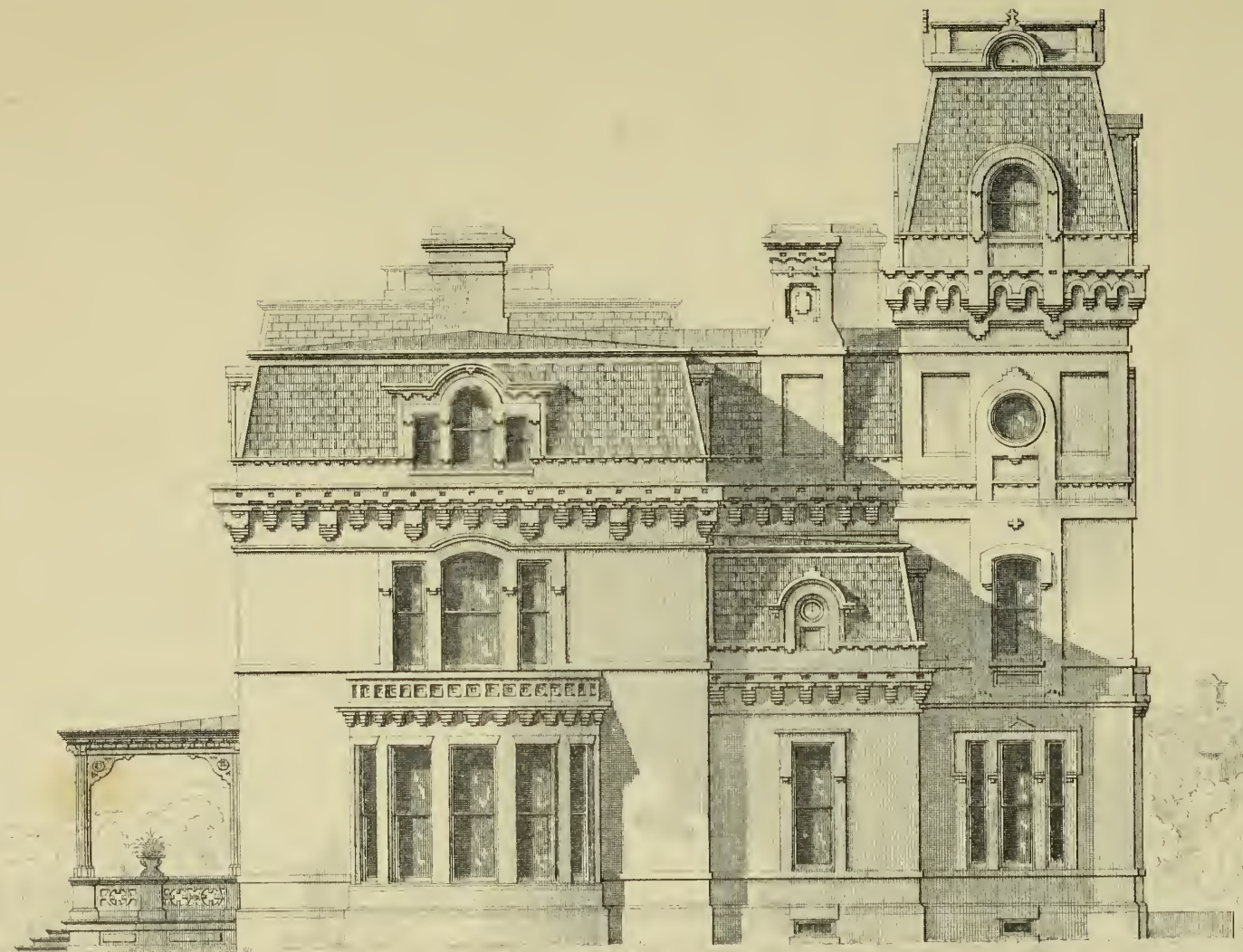


THIRD FLOOR PLAN

SCALE. 1/16 Inch to One Foot.

Design No. 19.

Plate No. 72.

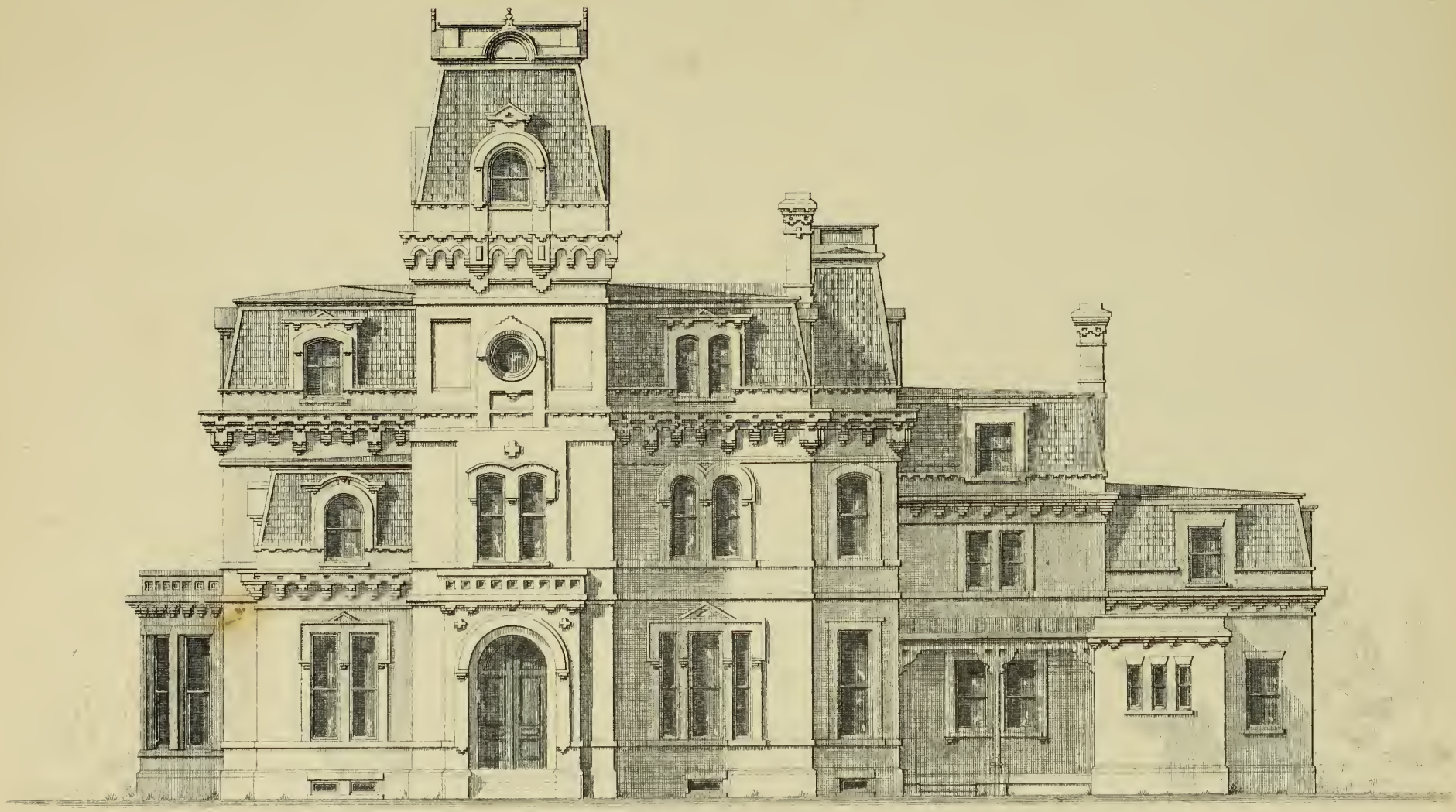


SIDE ELEVATION

SCALE. 0 3/32 Inch to One Foot

Design No. 19.

Plate No. 73.

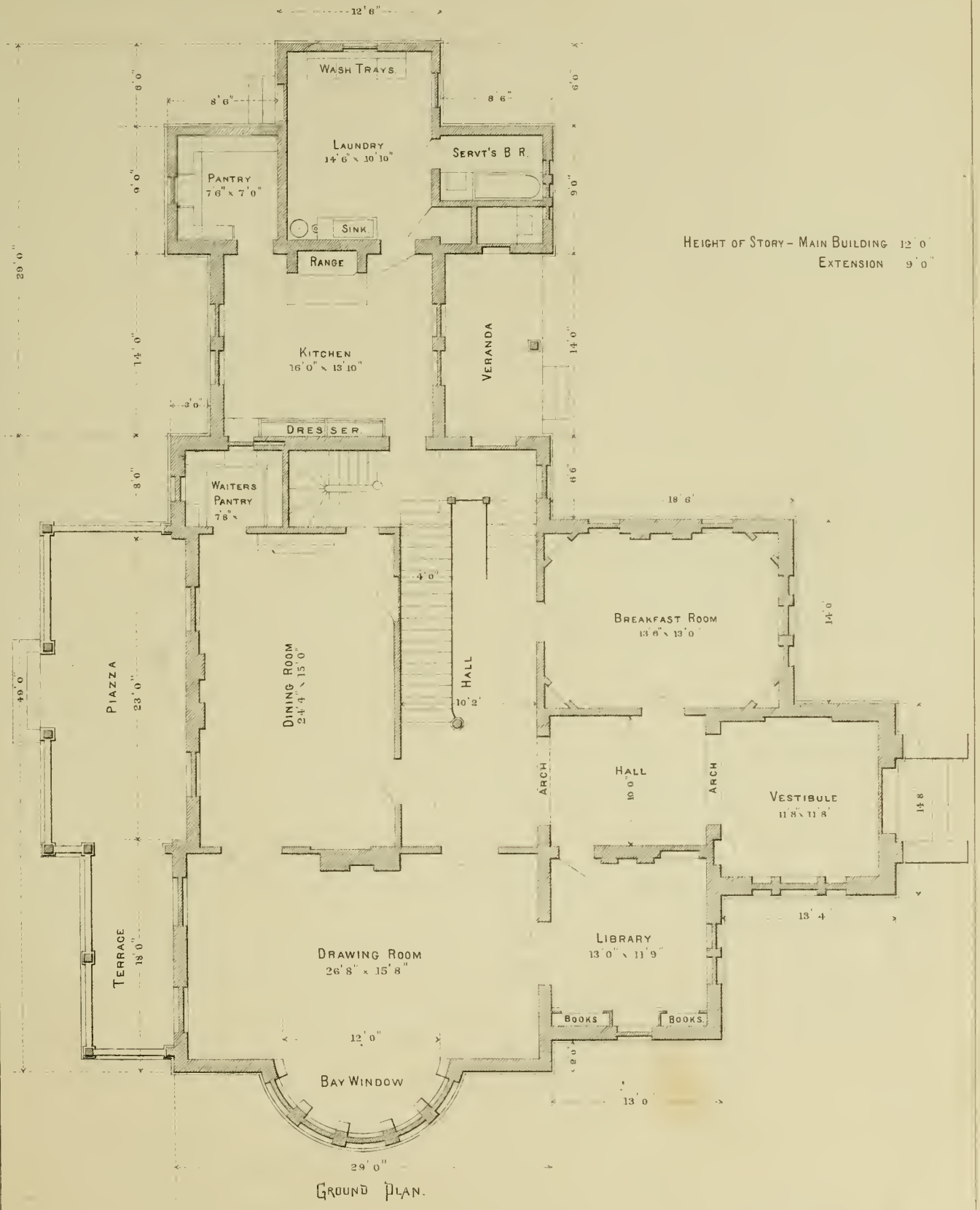


FRONT ELEVATION.

SCALE. 0 3/32 Inch to One Foot

Design No. 19.

Plate No. 74.



Ground Plan.

Scale. 0 3/32 Inch to One Foot

Design No. 19.

Plate No. 75.

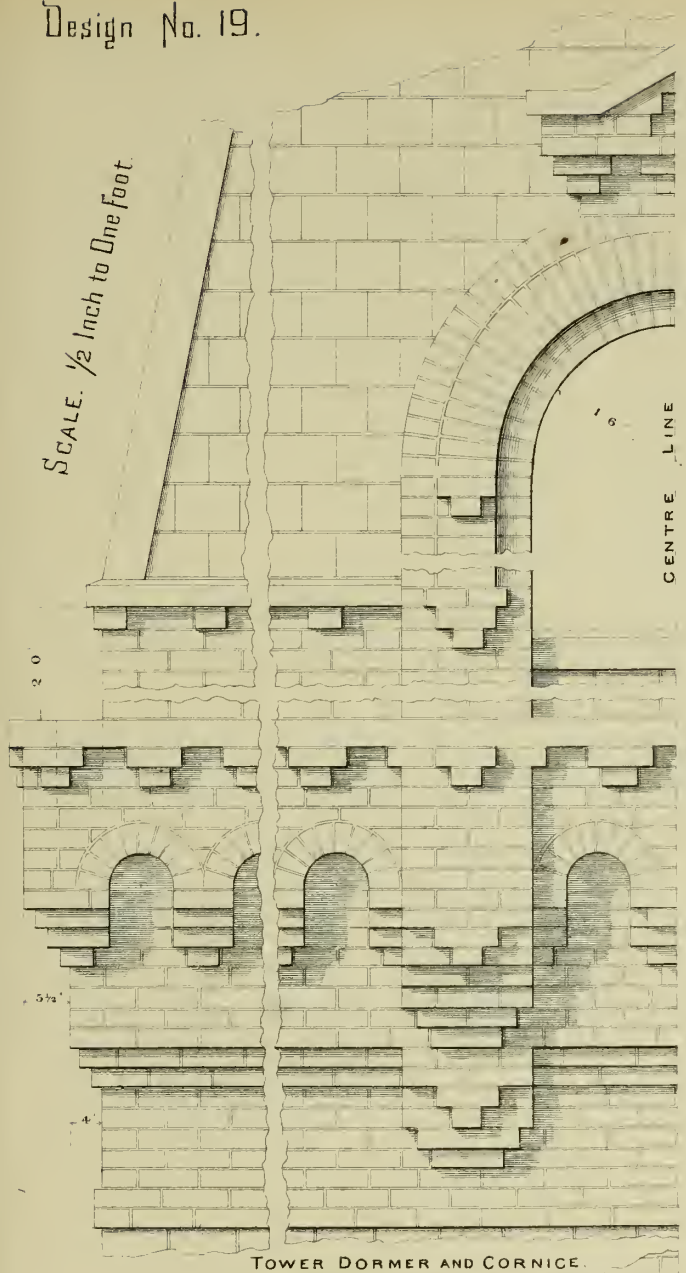
Chamber Plan

Scale. 0 3/32 Inch to One Foot.

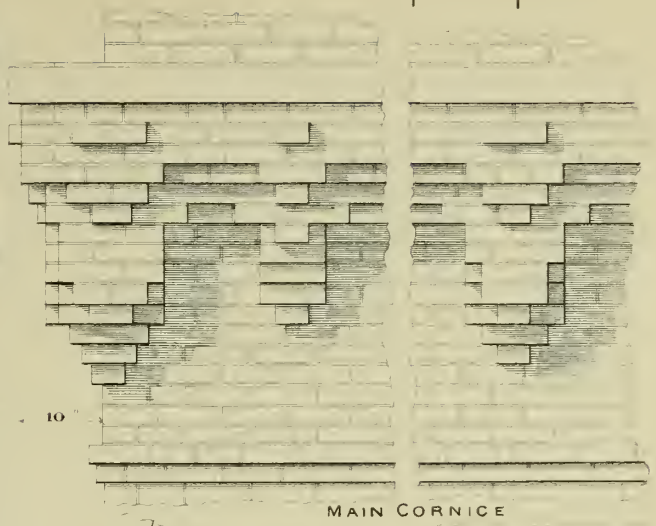
Design No. 19.

Plate No. 76

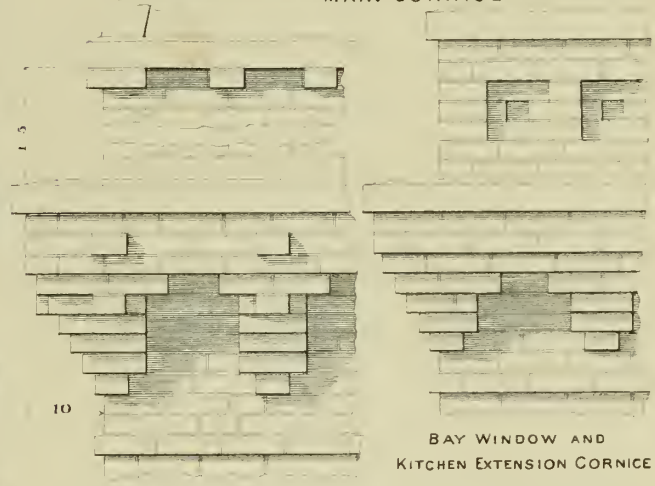
SCALE. ½ Inch to One Foot.



TOWER DORMER AND CORNICE.

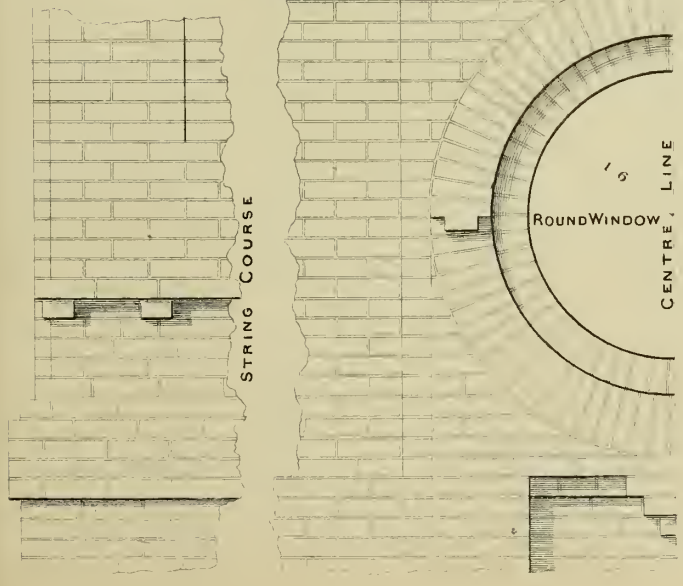


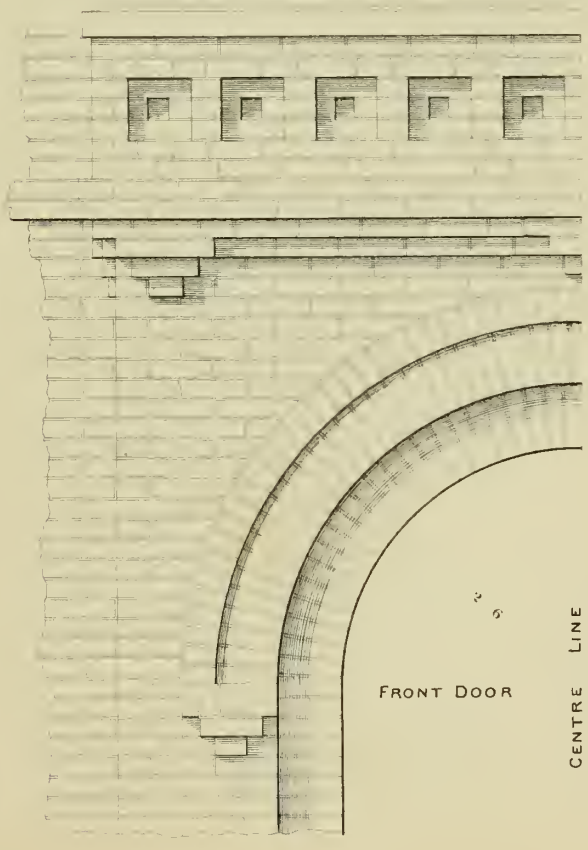
MAIN CORNICE



LIBRARY CORNICE

BAY WINDOW AND KITCHEN EXTENSION CORNICE.

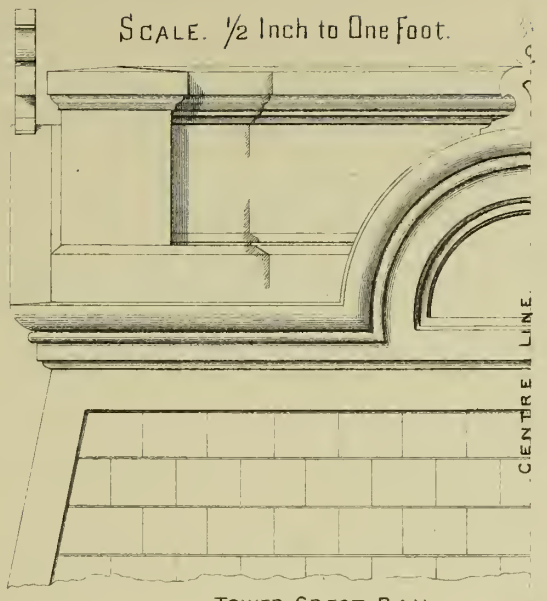




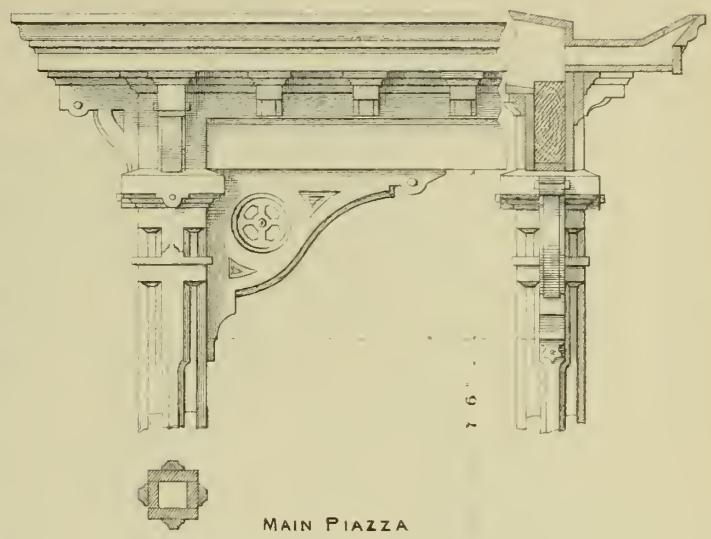
Design No. 19.

Plate No. 77.

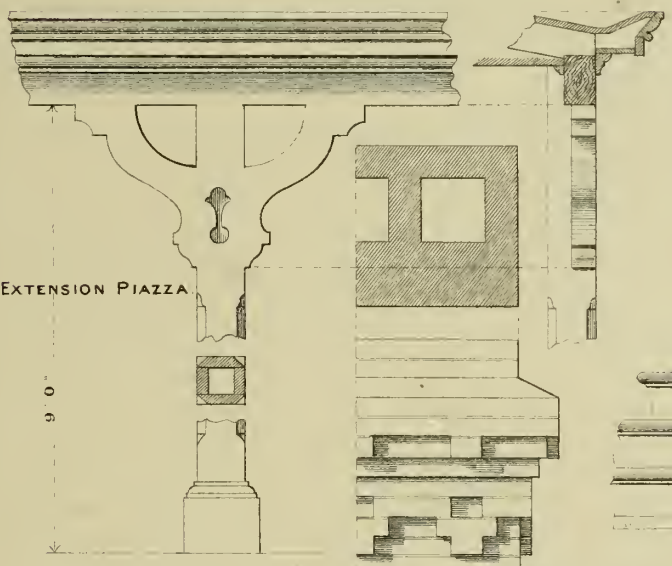
SCALE. ½ Inch to One Foot.



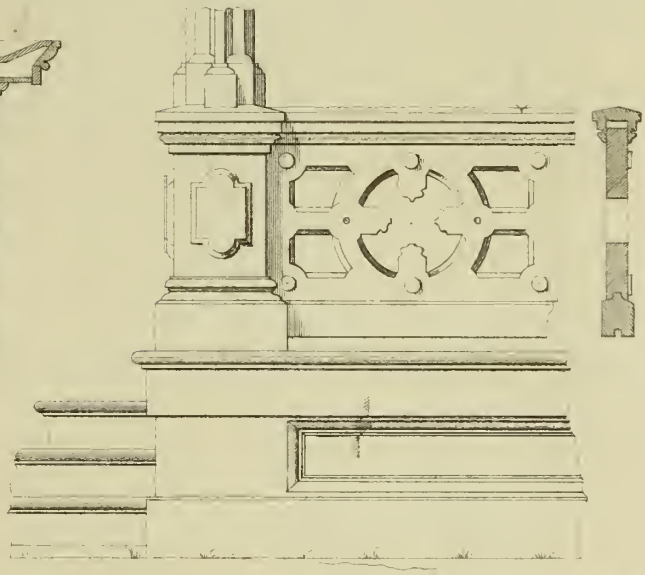
TOWER CREST RAIL.

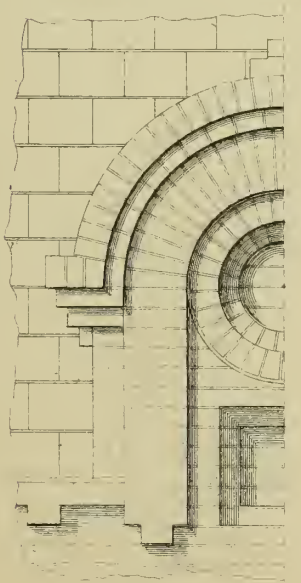


MAIN PIAZZA

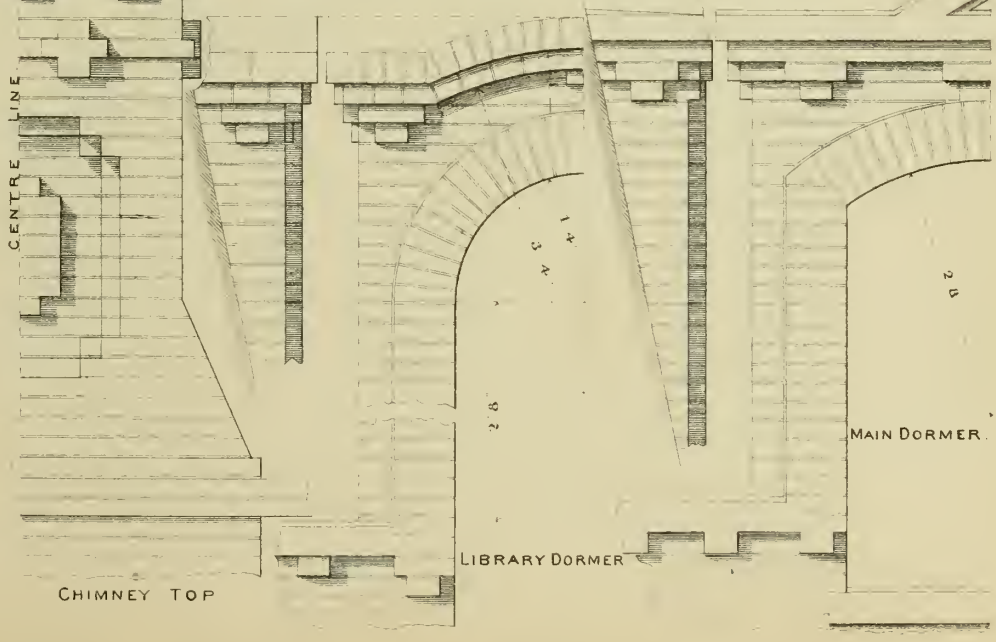


EXTENSION PIAZZA





BLANK DORMER (LIBRARY)



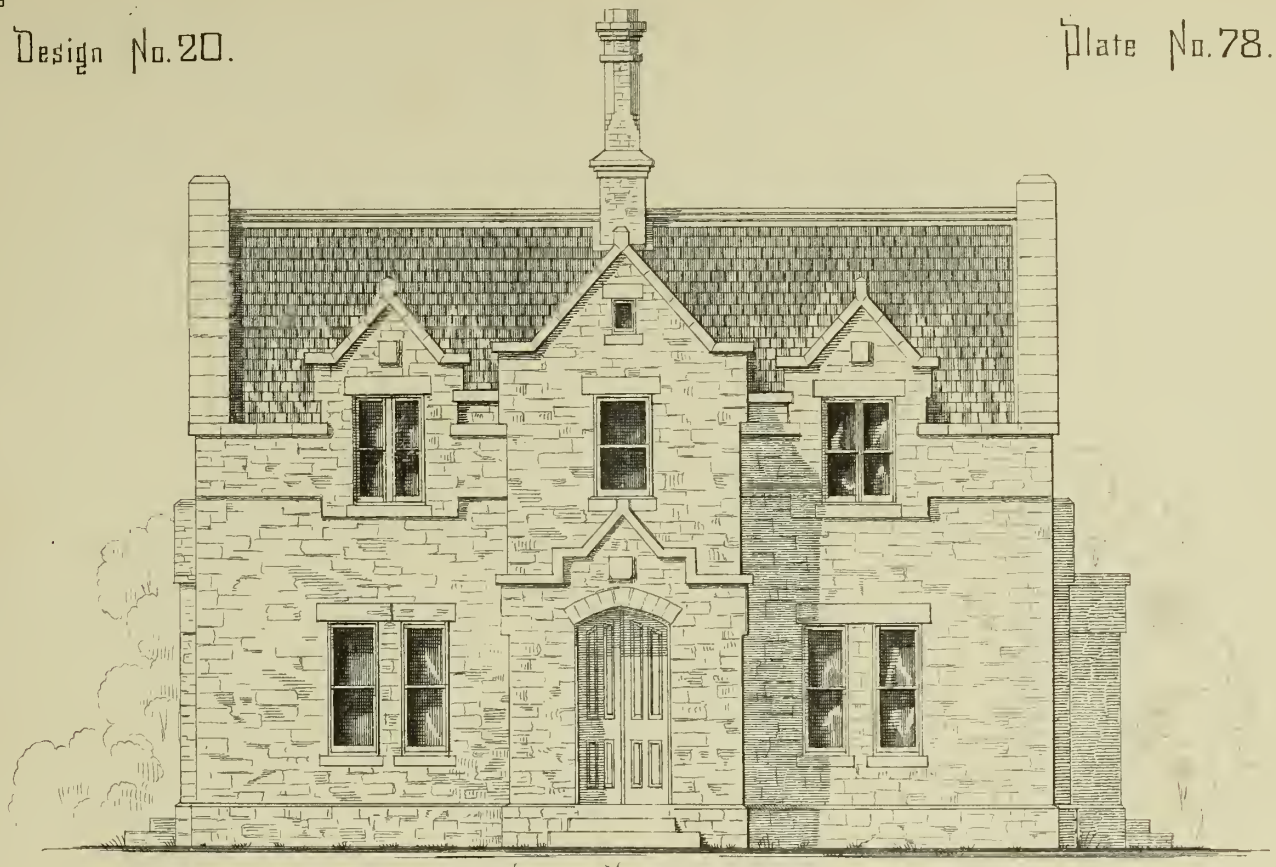
CHIMNEY TOP

MAIN DORMER.

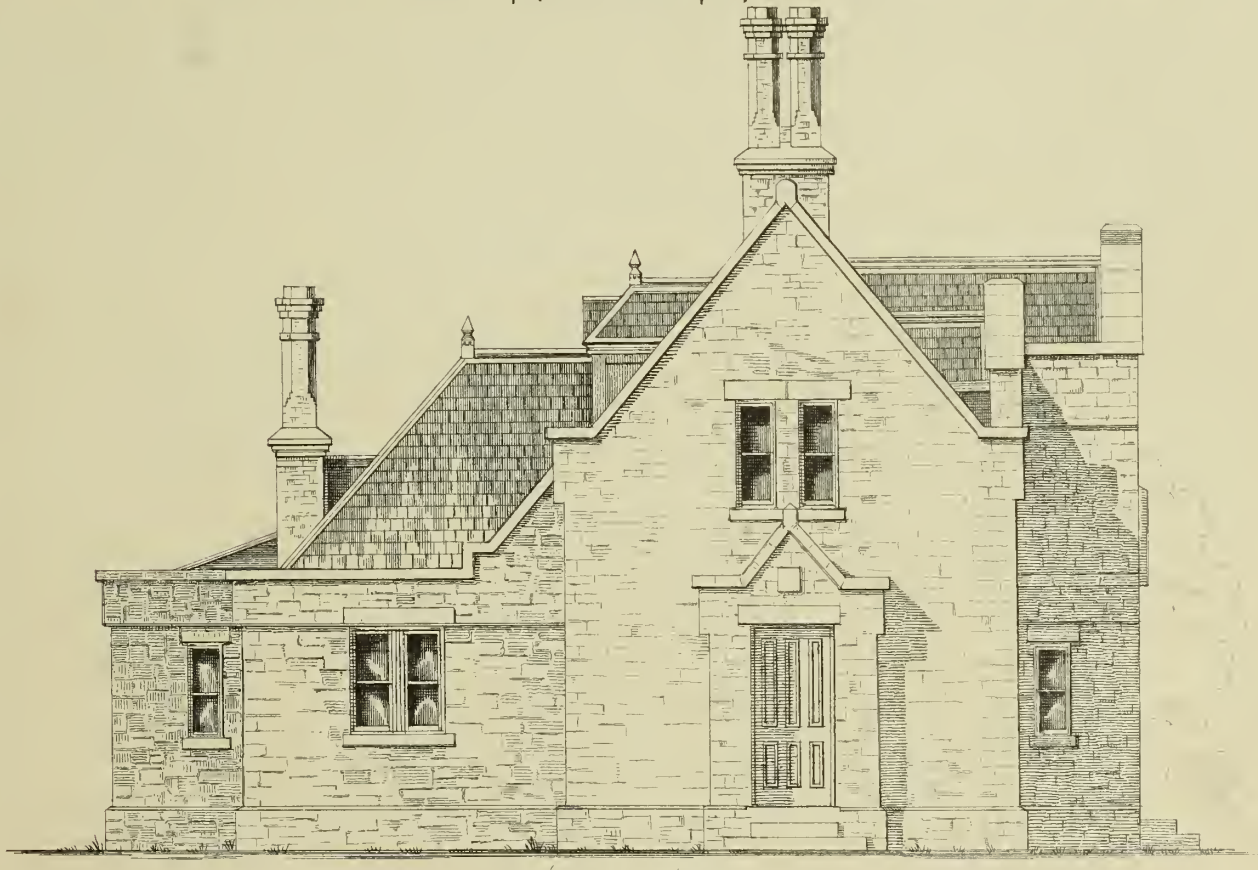
LIBRARY DORMER

Design No. 20.

Plate No. 78.



FRONT ELEVATION.

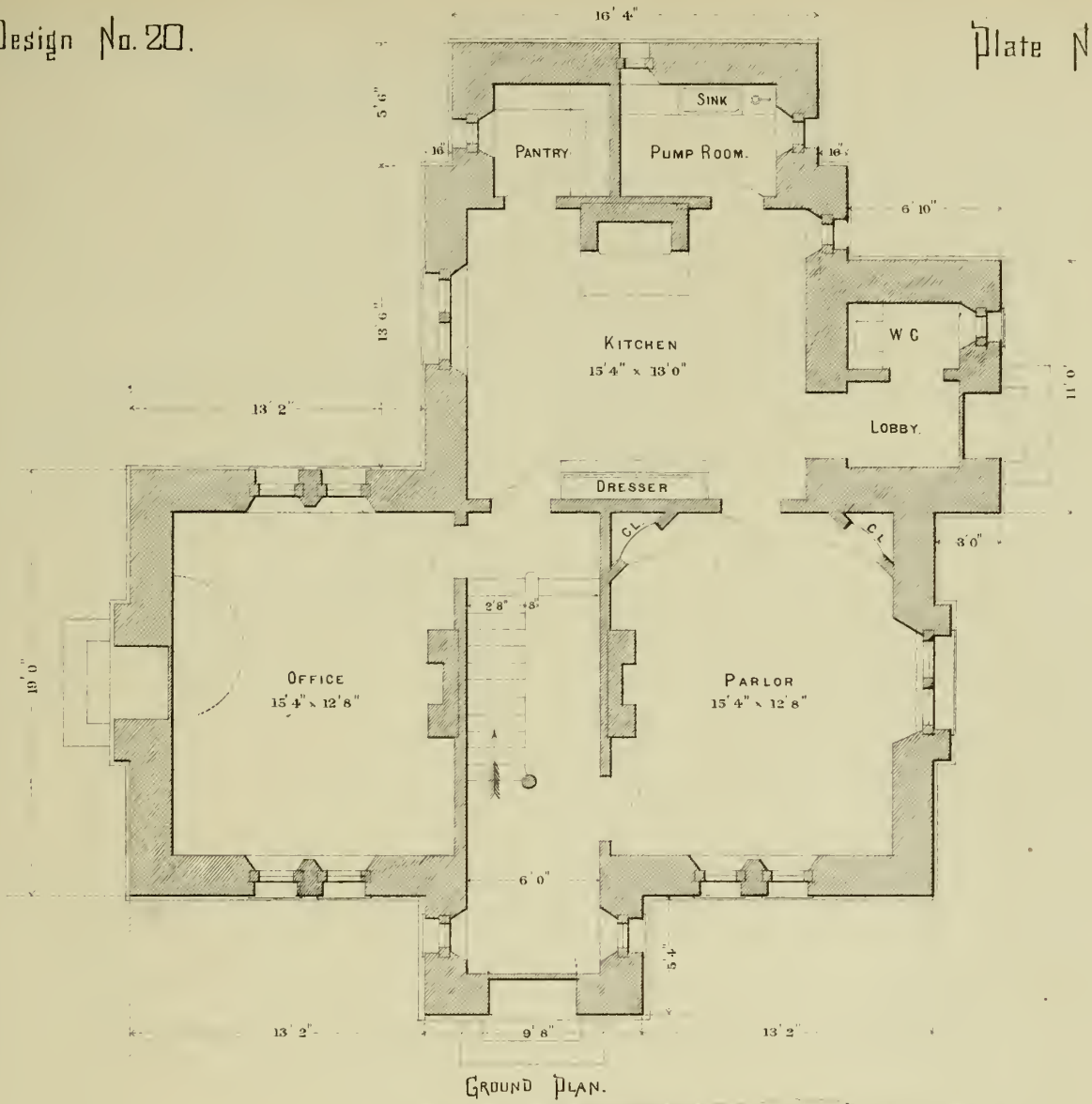


SIDE ELEVATION.

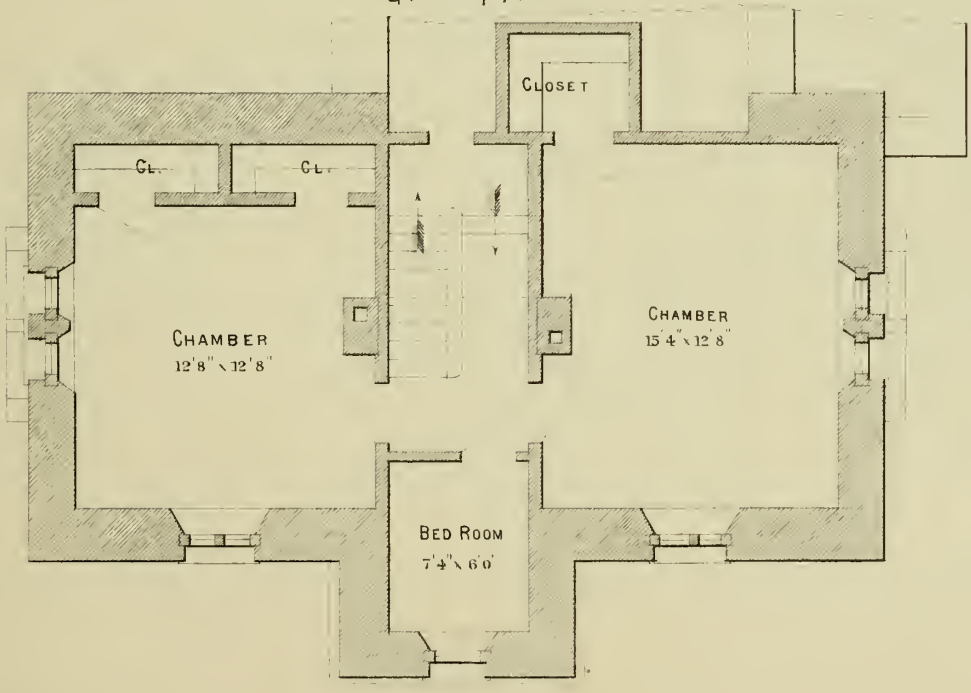
SCALE 0'8 IN TO ONE FOOT.

Design No. 20.

Plate No. 79.



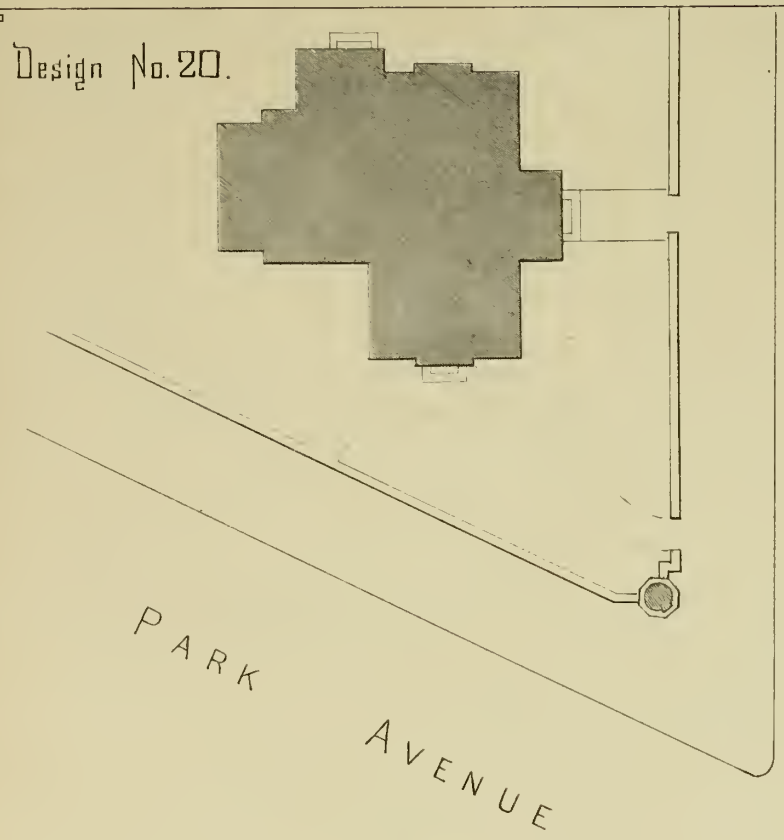
GROUND PLAN.

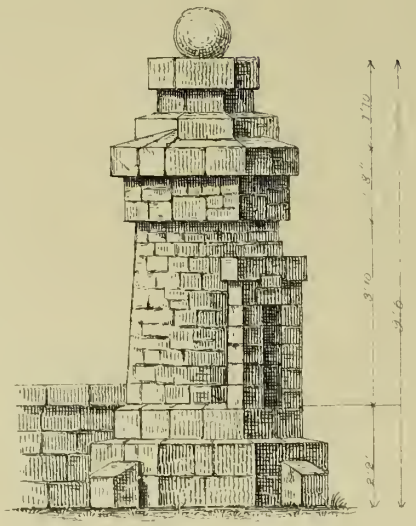


CHAMBER PLAN.

Design No. 20.

Plate No. 80.



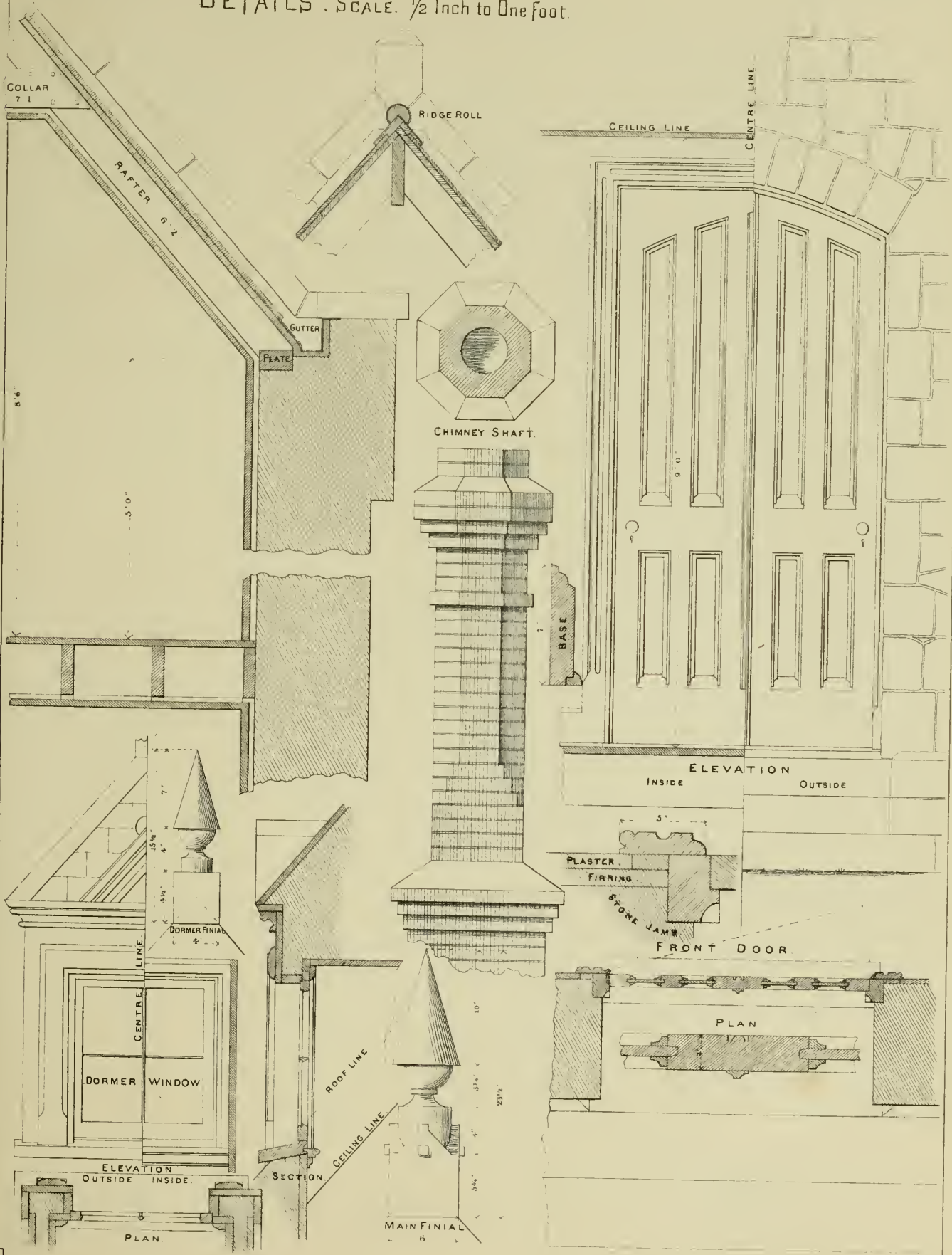


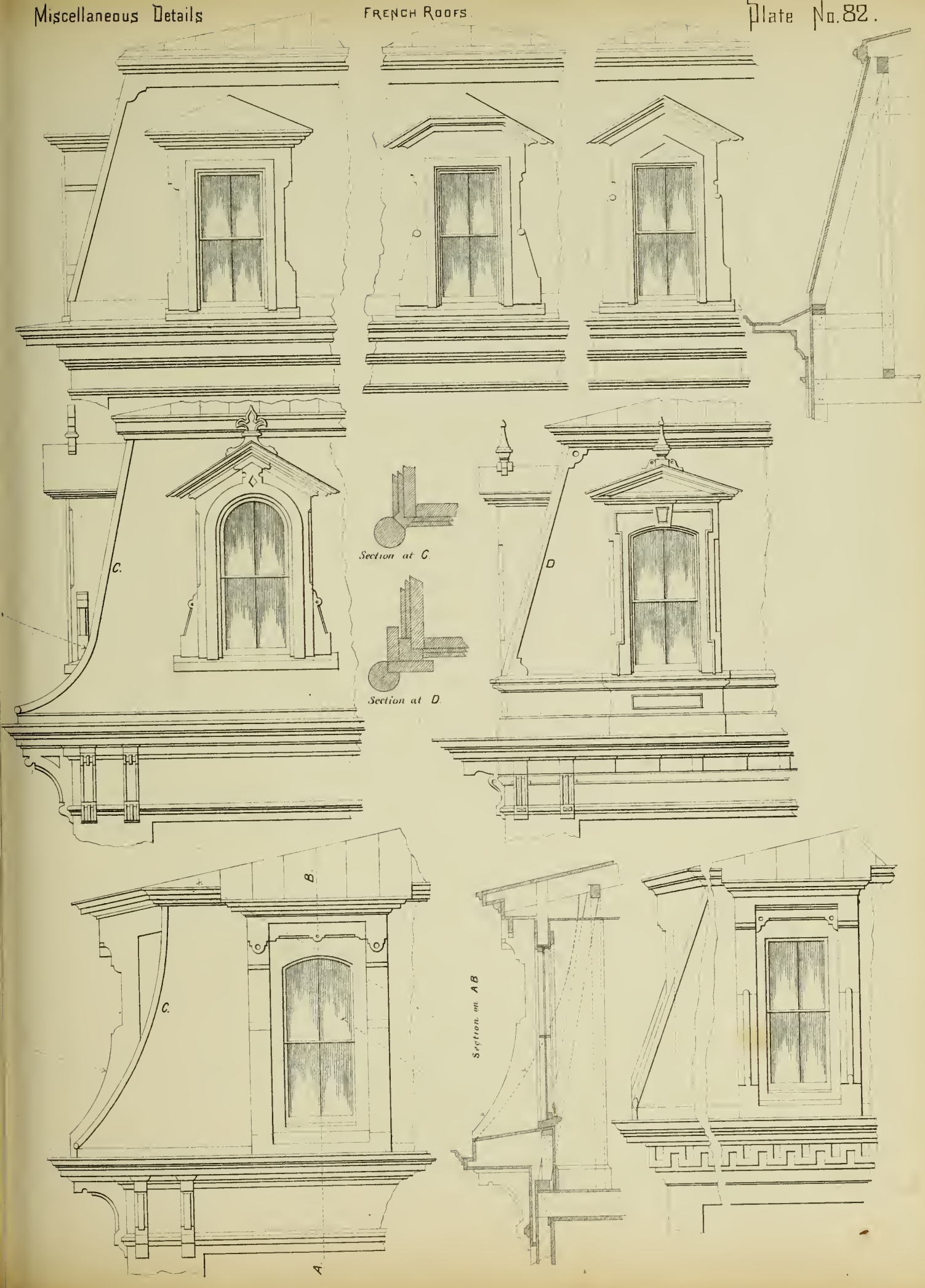
SCALE. 1/16 Inch to One Foot.

Design No. 20.

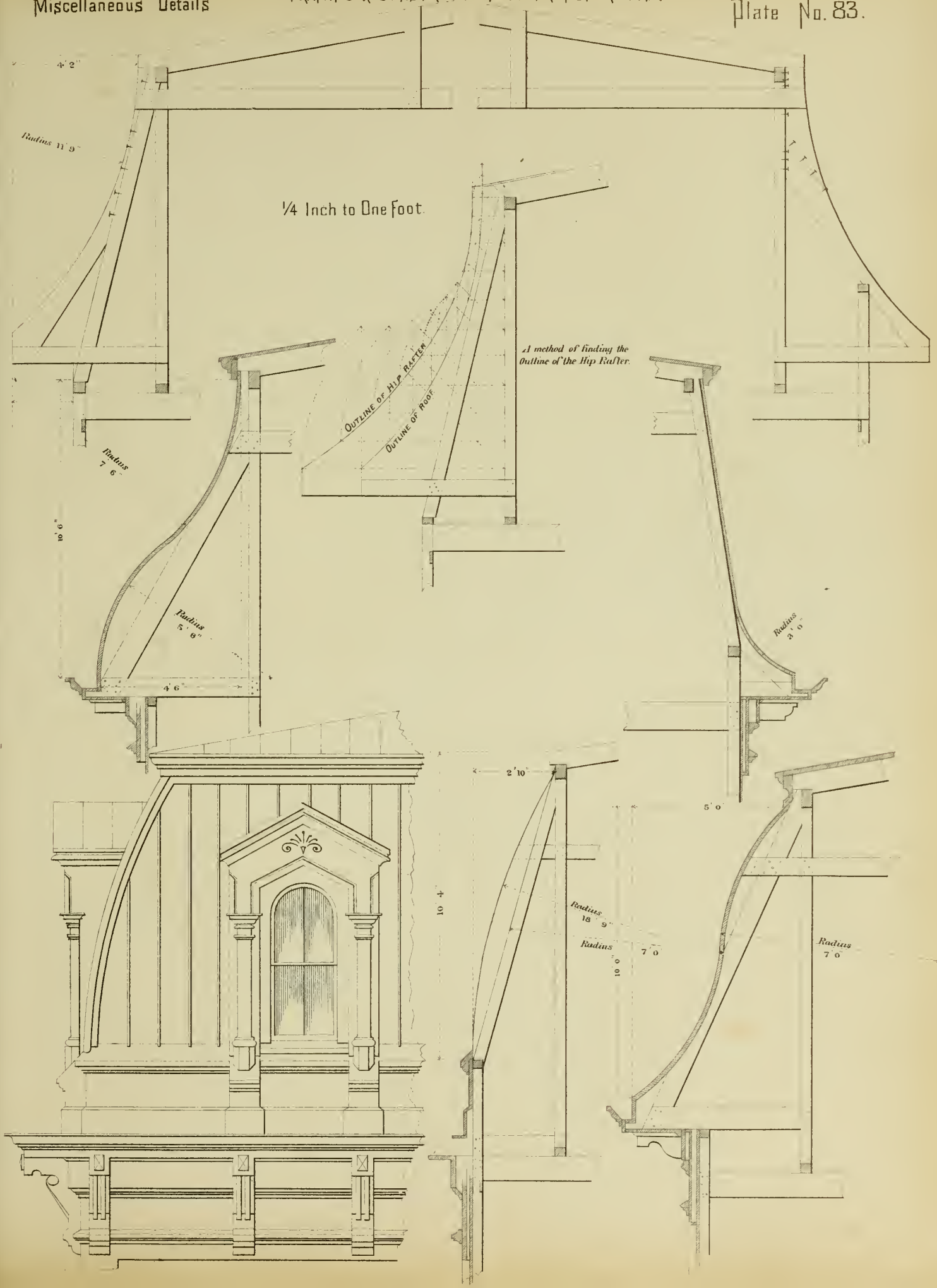
DETAILS. Scale. ½ Inch to One Foot.

Plate No. 81.



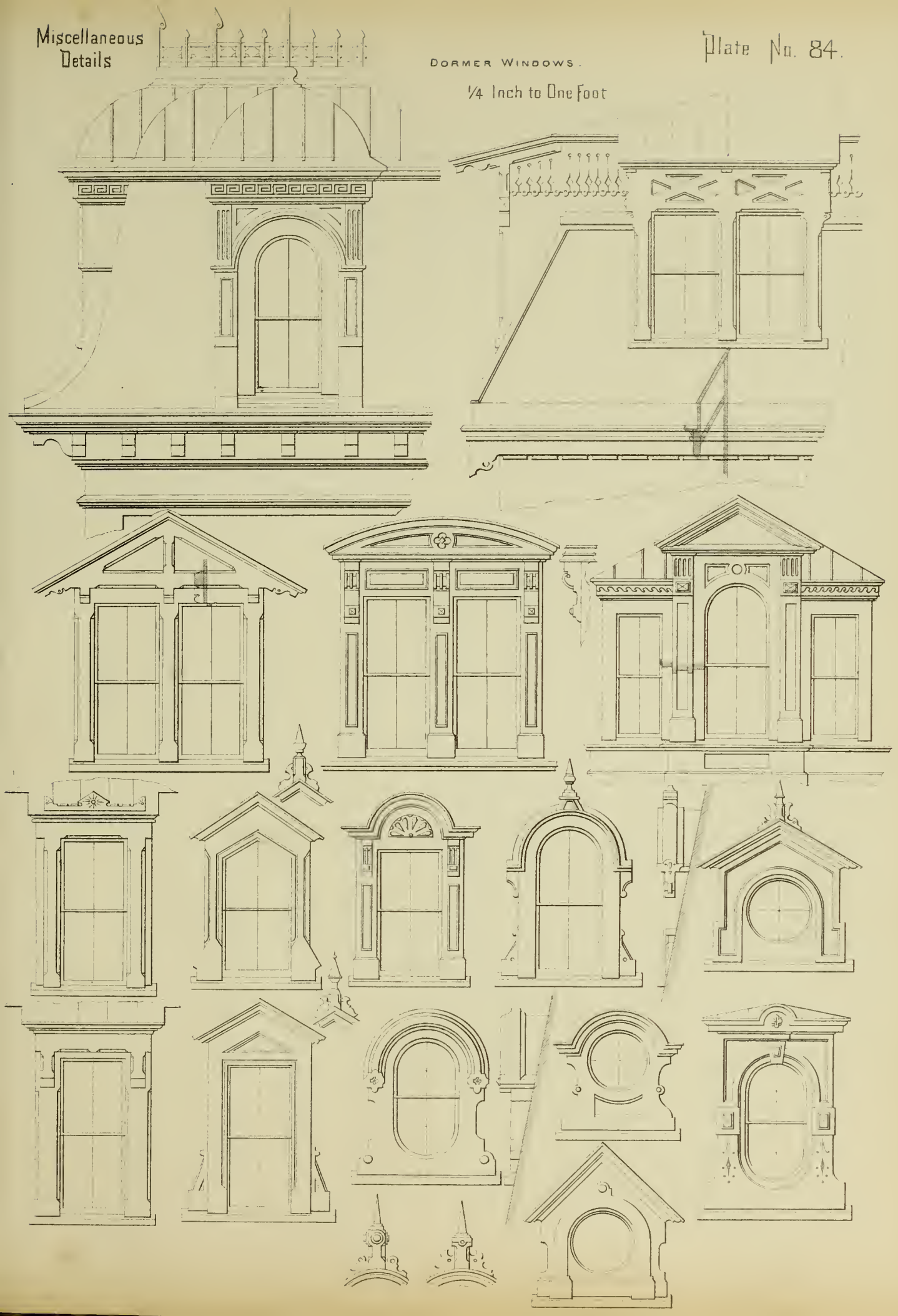

C.
Section at C.
D
Section at D.
B
C.
A
Section on AB

Framing & Construction of French Roofs.



DORMER WINDOWS.

¼ Inch to One Foot

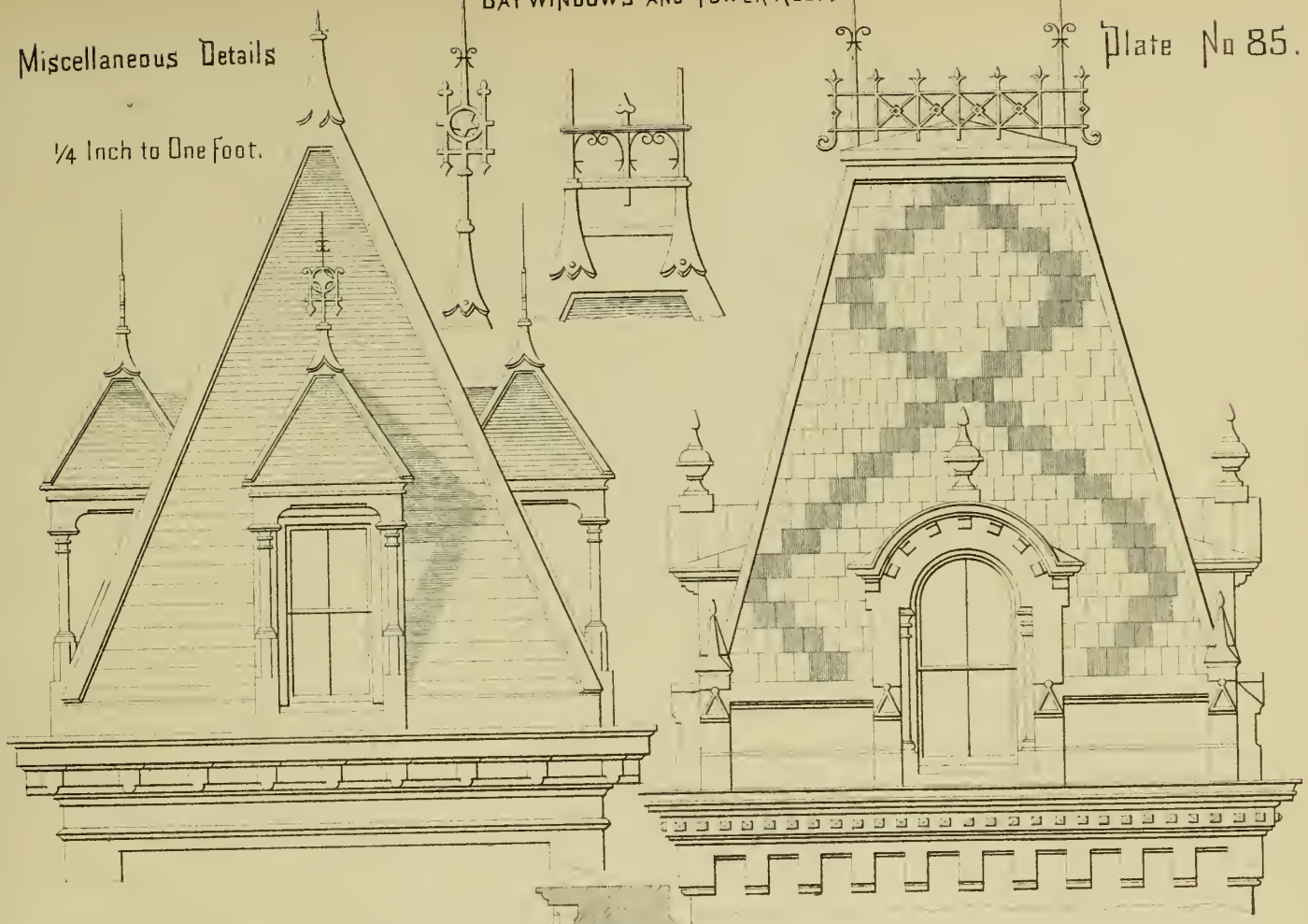


Bay Windows and Tower Roofs.

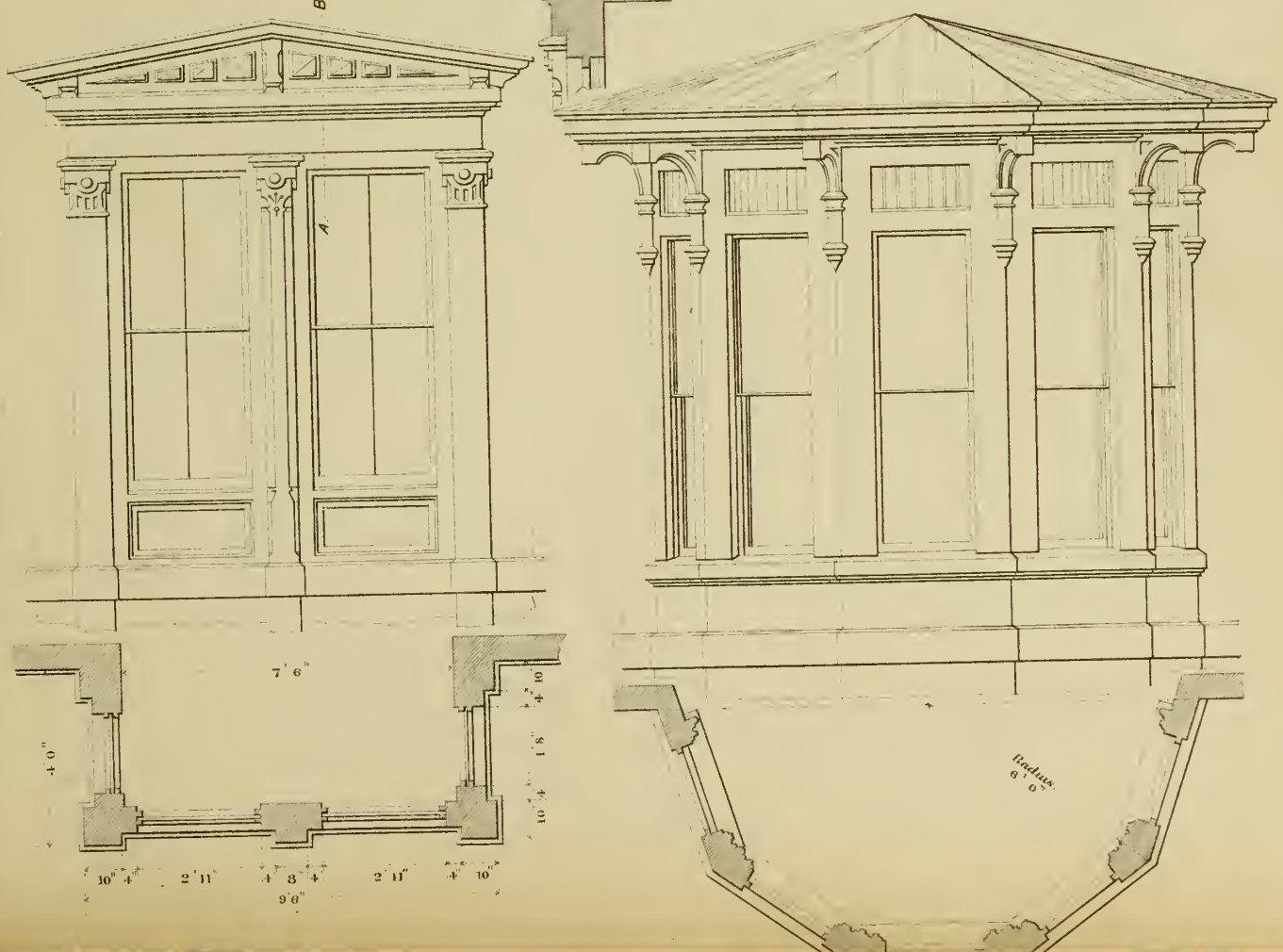
Miscellaneous Details

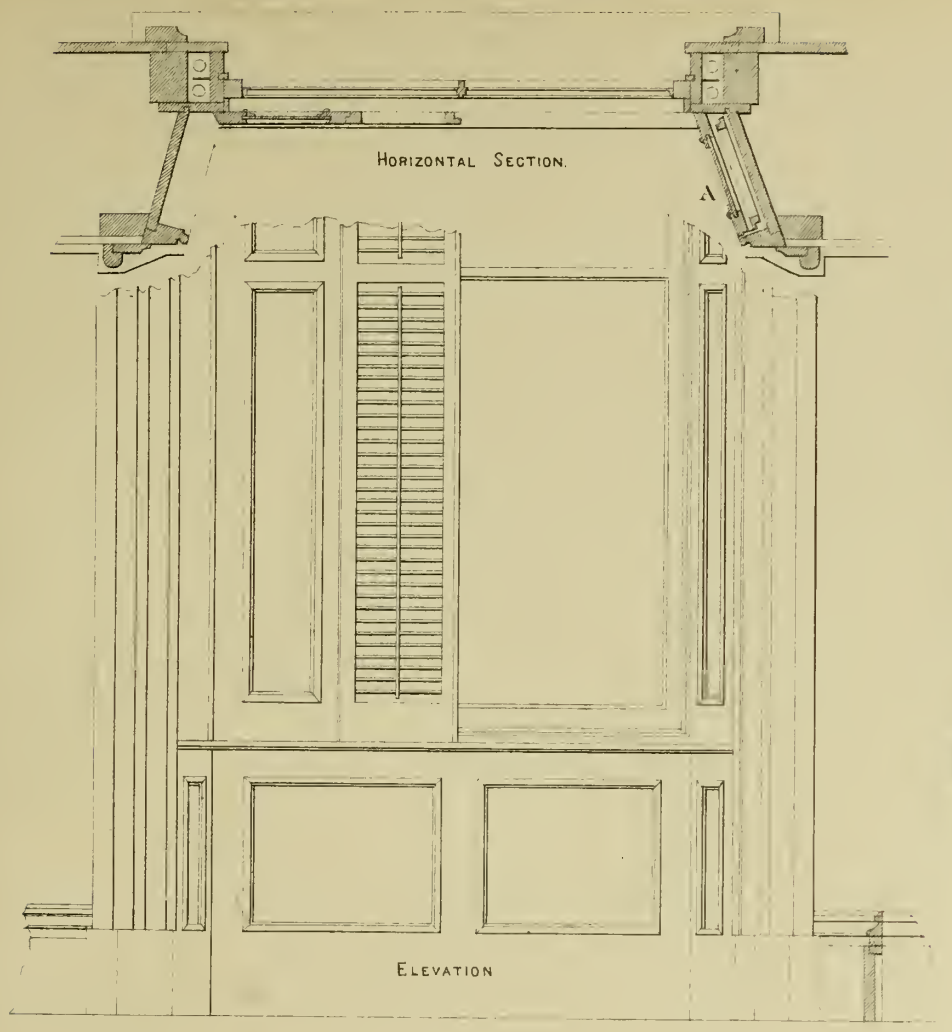
Plate No 85.

¼ Inch to One Foot.



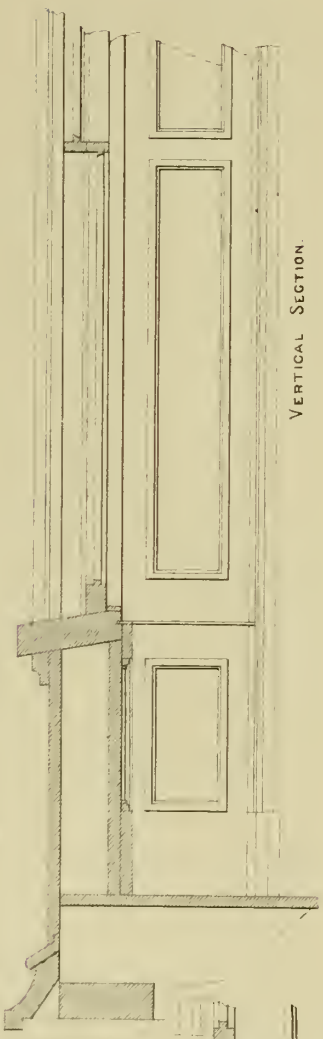
Section on A B

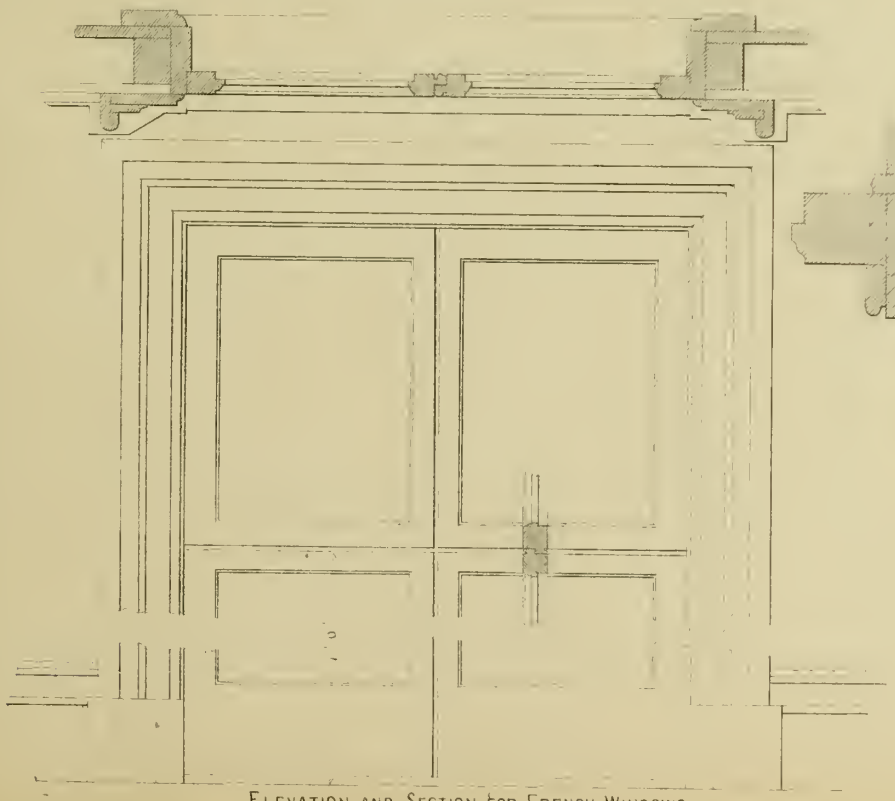




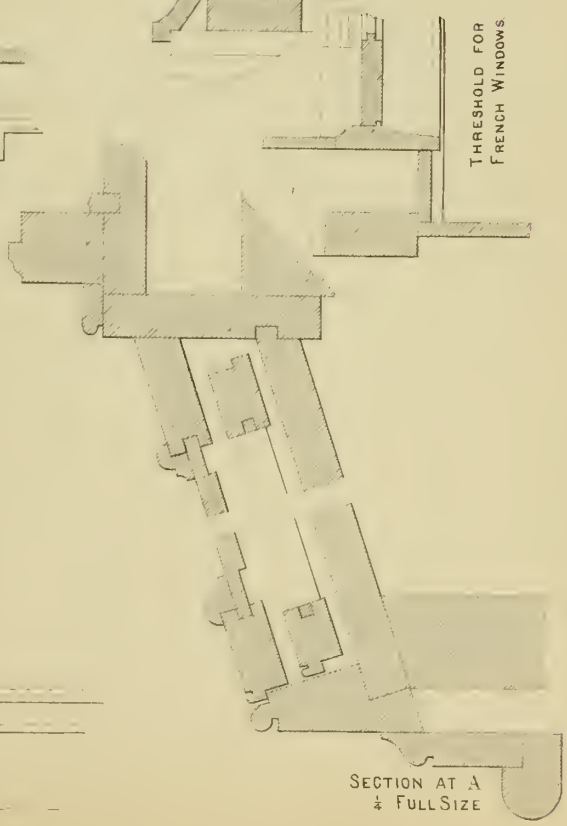
Details for Inside Shutters.

¾ Inch to One Foot.



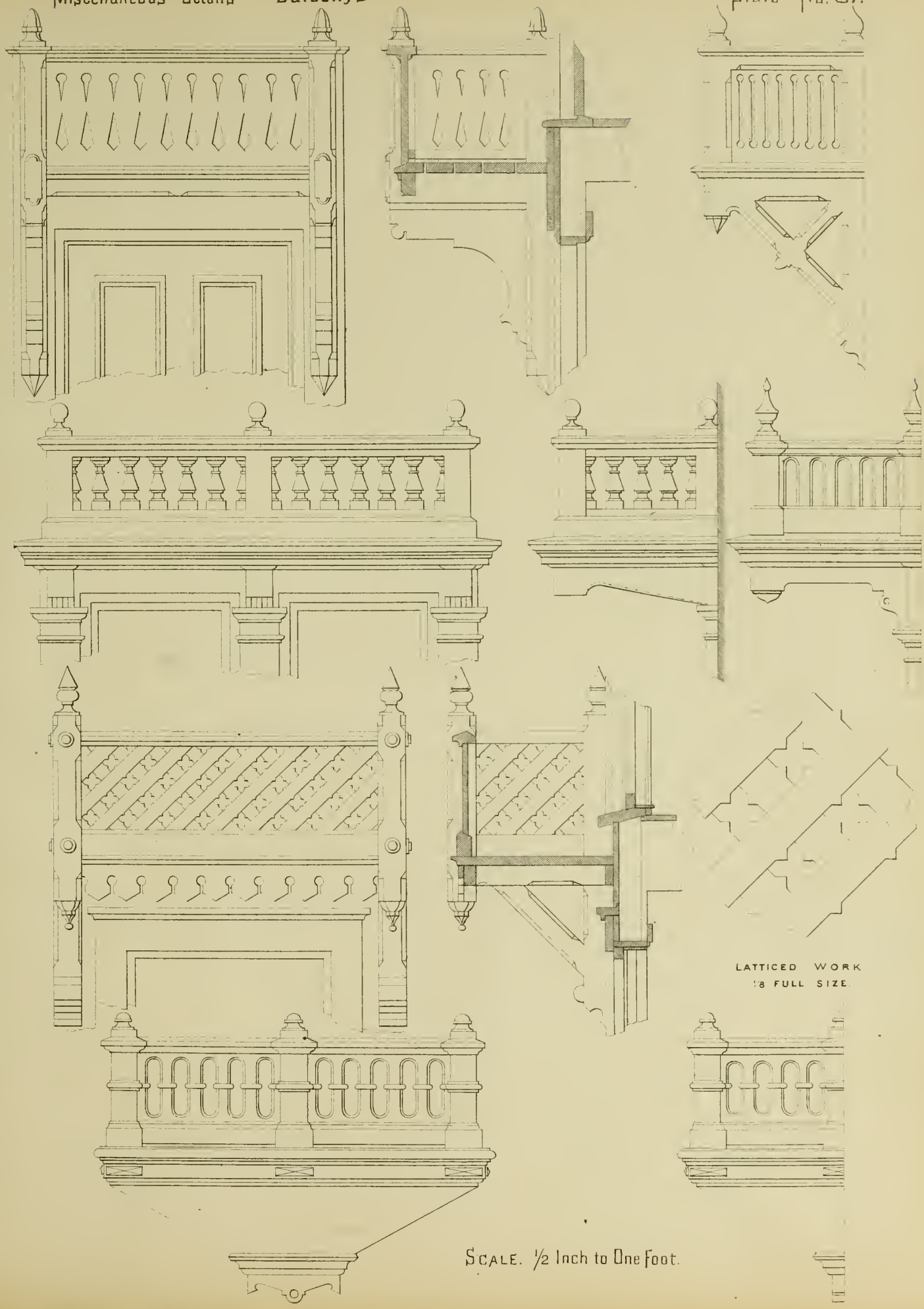


Elevation and Section for French Windows.

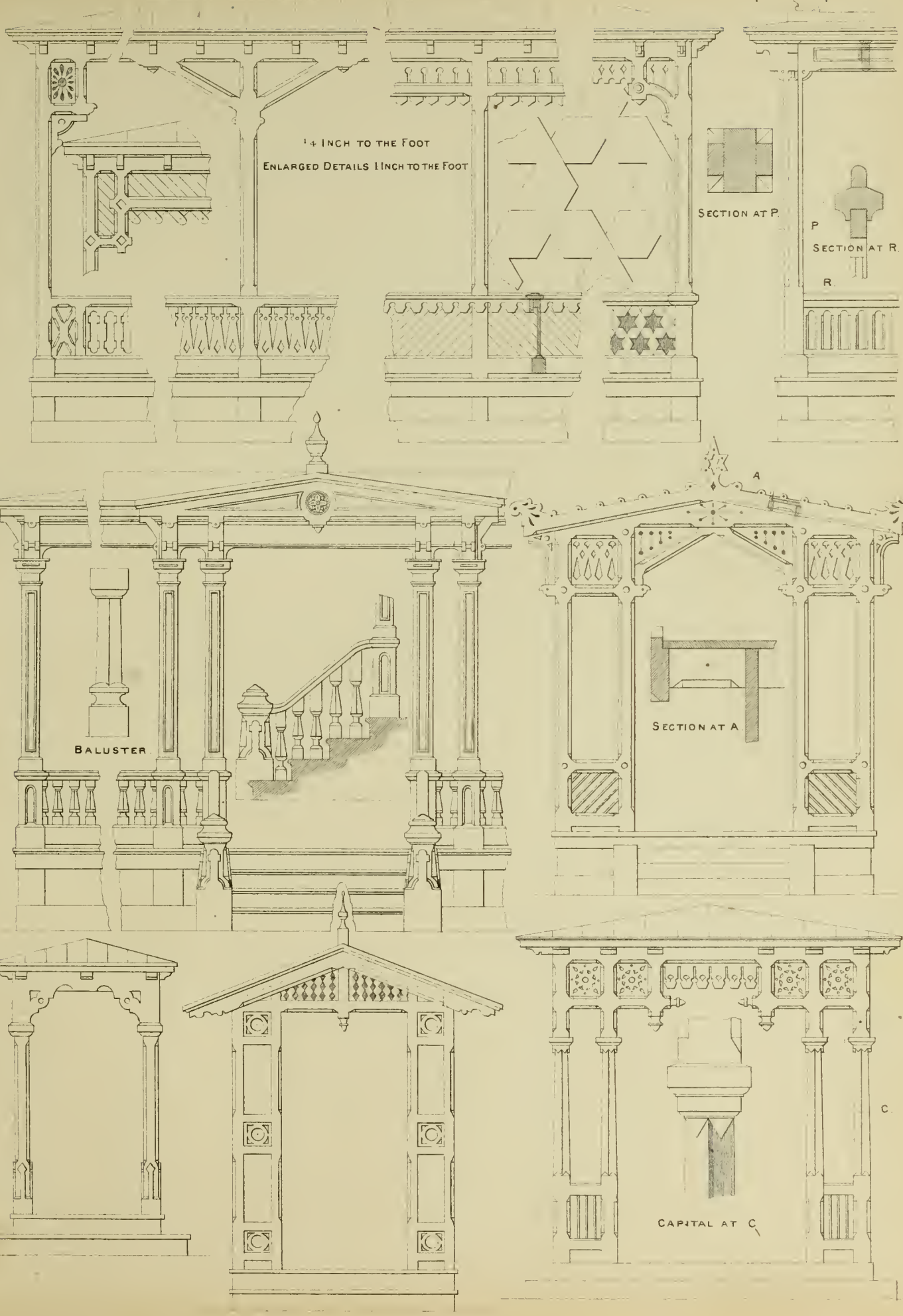


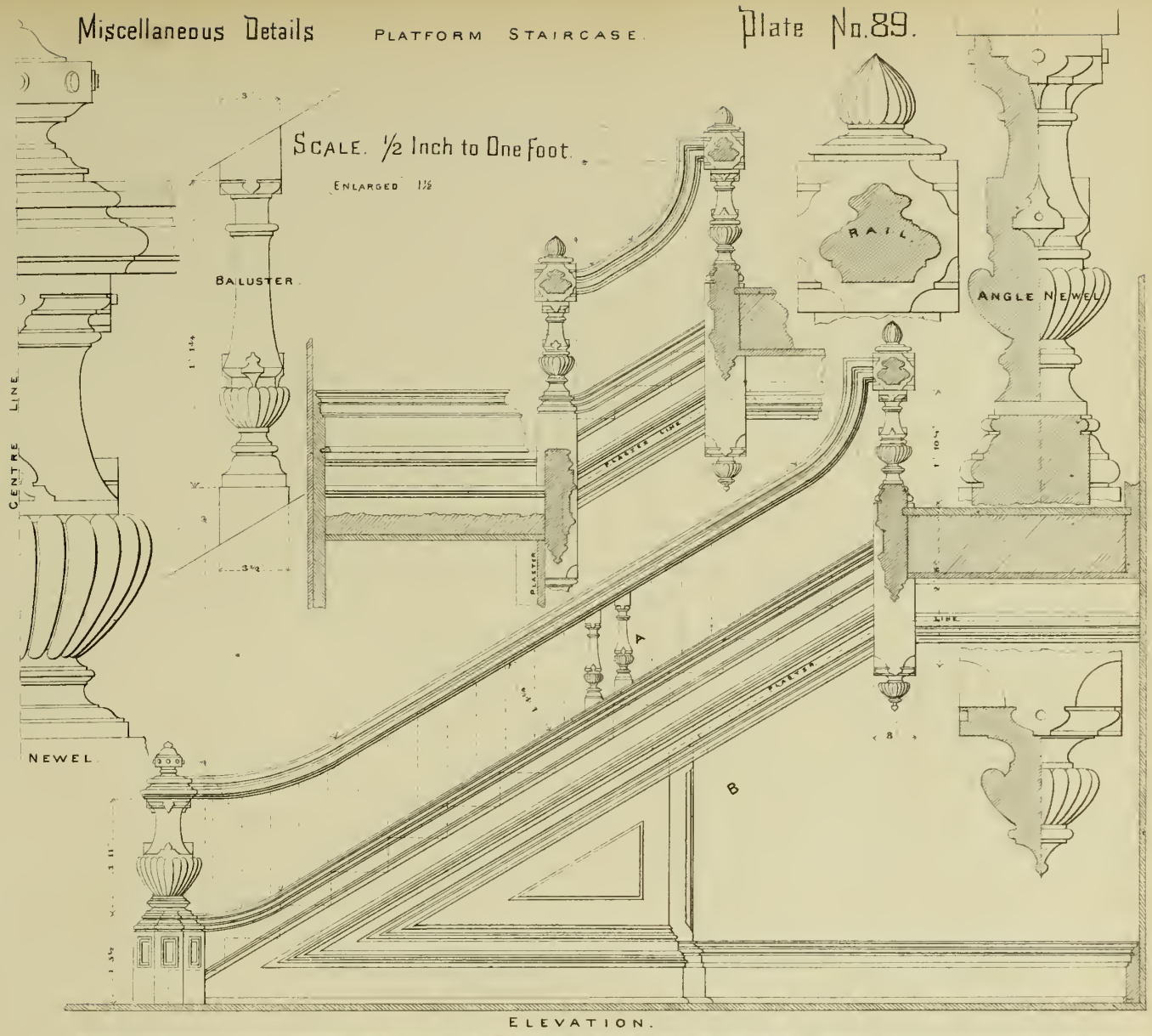
Miscellaneous Details Balconys

Plate No. 87.

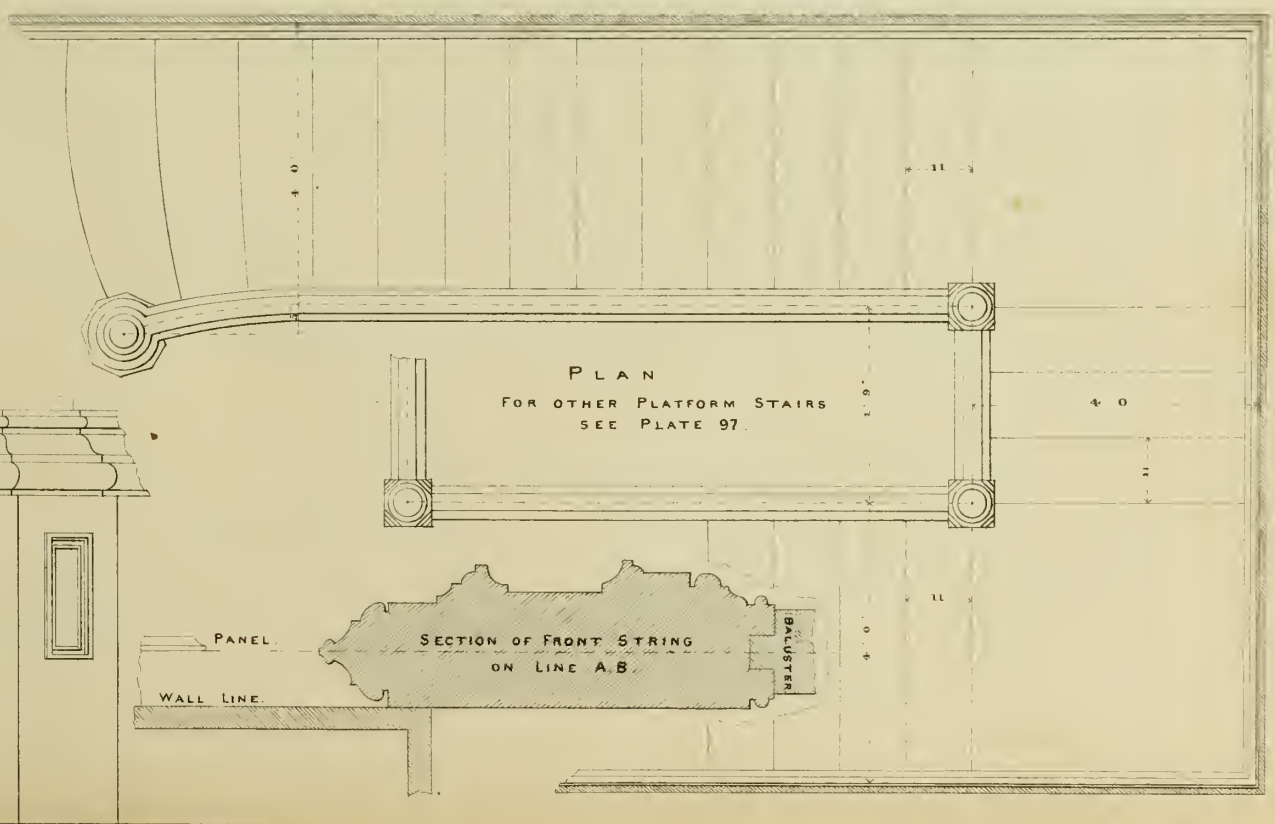


Scale. 1/2 Inch to One Foot.


1/4 INCH TO THE FOOT
ENLARGED DETAILS 1 INCH TO THE FOOT
SECTION AT P.
P
SECTION AT R.
R
A
SECTION AT A.
BALUSTER.
C.
CAPITAL AT C.

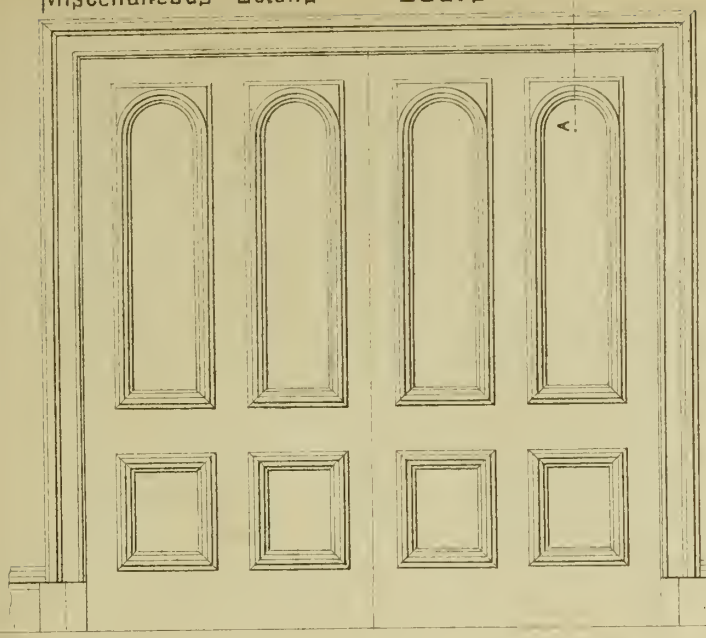

SCALE. ½ Inch to One Foot.
ENLARGED 1½
BALUSTER
RAIL
ANGLE NEWEL
CENTRE LINE
NEWEL
PLASTER LINE
PLASTER
A
B

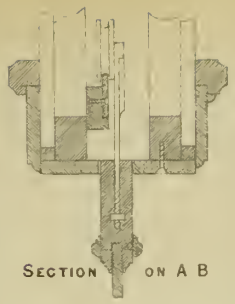
ELEVATION.

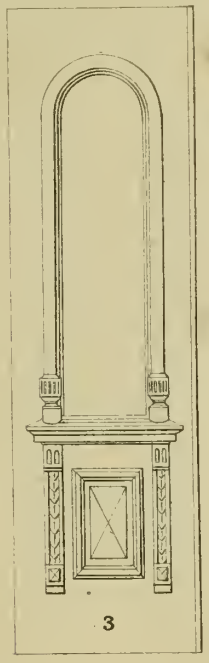

PLAN
FOR OTHER PLATFORM STAIRS
SEE PLATE 97.
PANEL
WALL LINE.
SECTION OF FRONT STRING
ON LINE A.B.
BALUSTER
CENTRE LINE

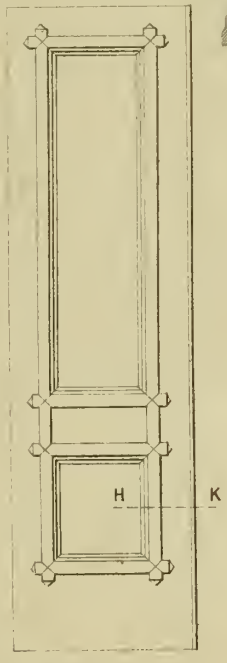
Miscellaneous Details. Doors

Plate No. 90.

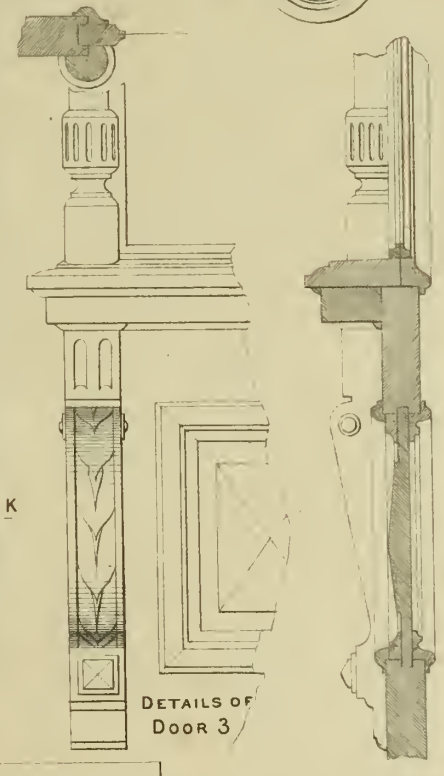


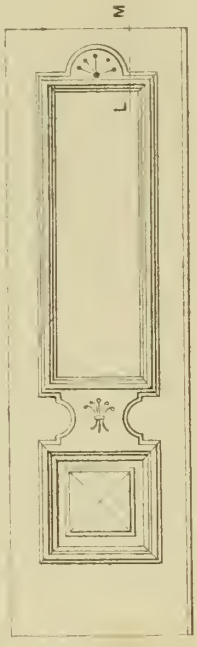


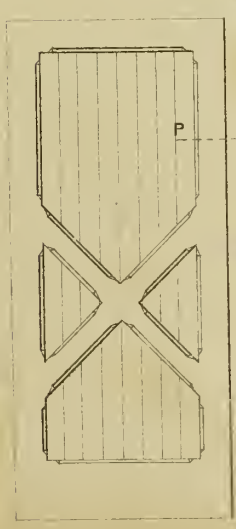




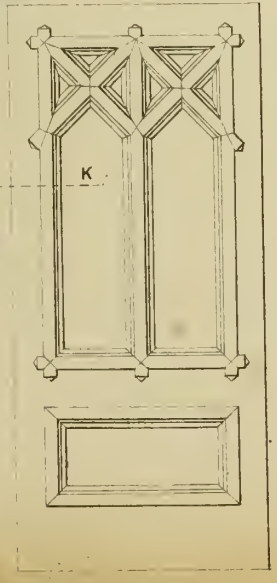
SECTION ON H K

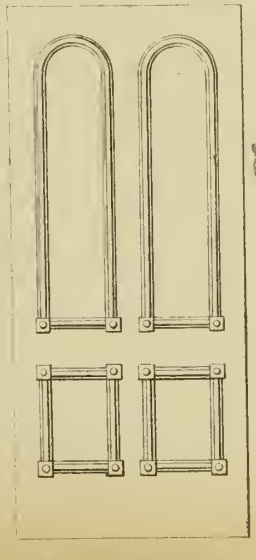






SECTION ON P R

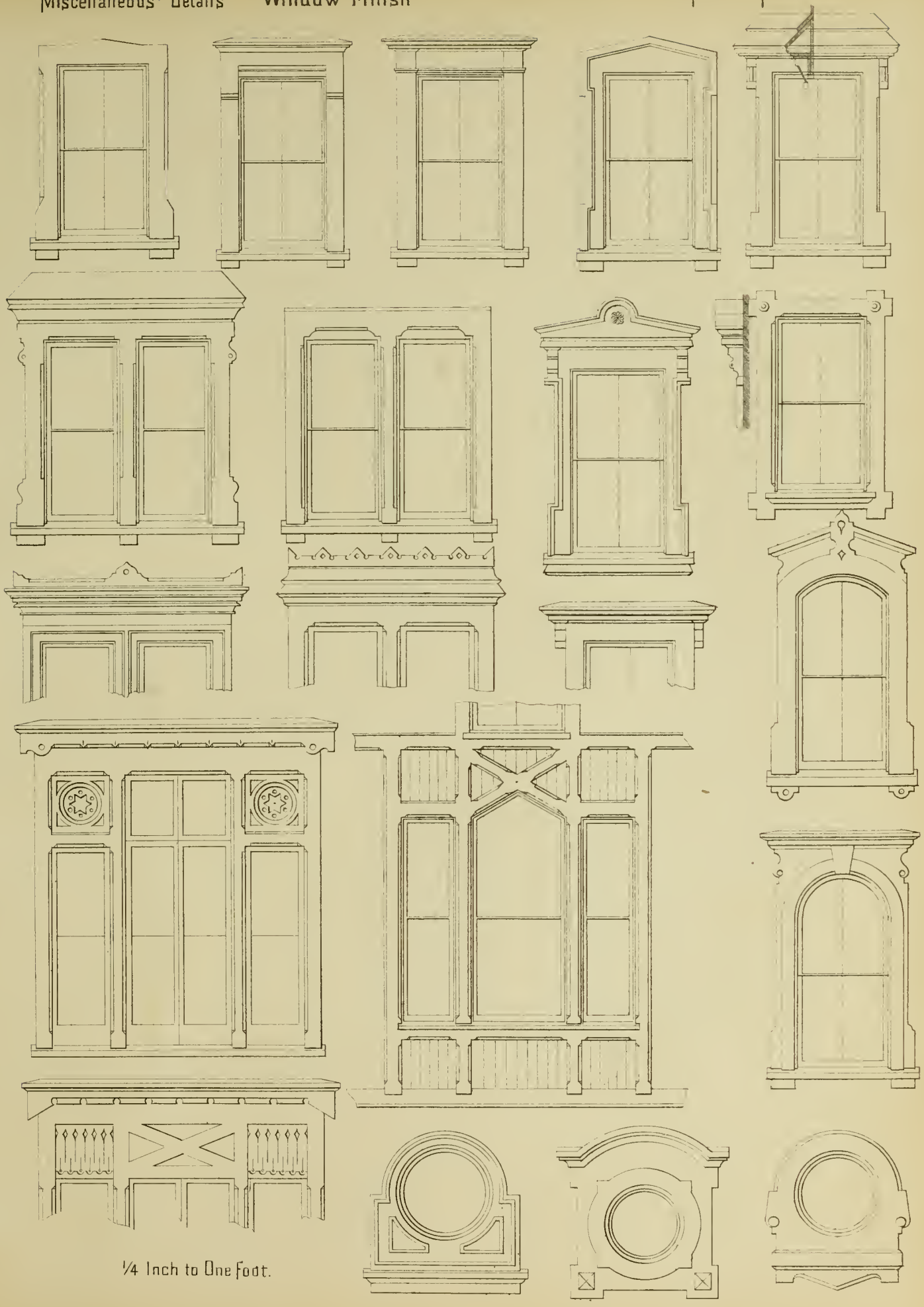




SCALE. 3/8 Inch to One foot

Miscellaneous Details Window Finish

Plate No. 91.



¼ Inch to One Foot.

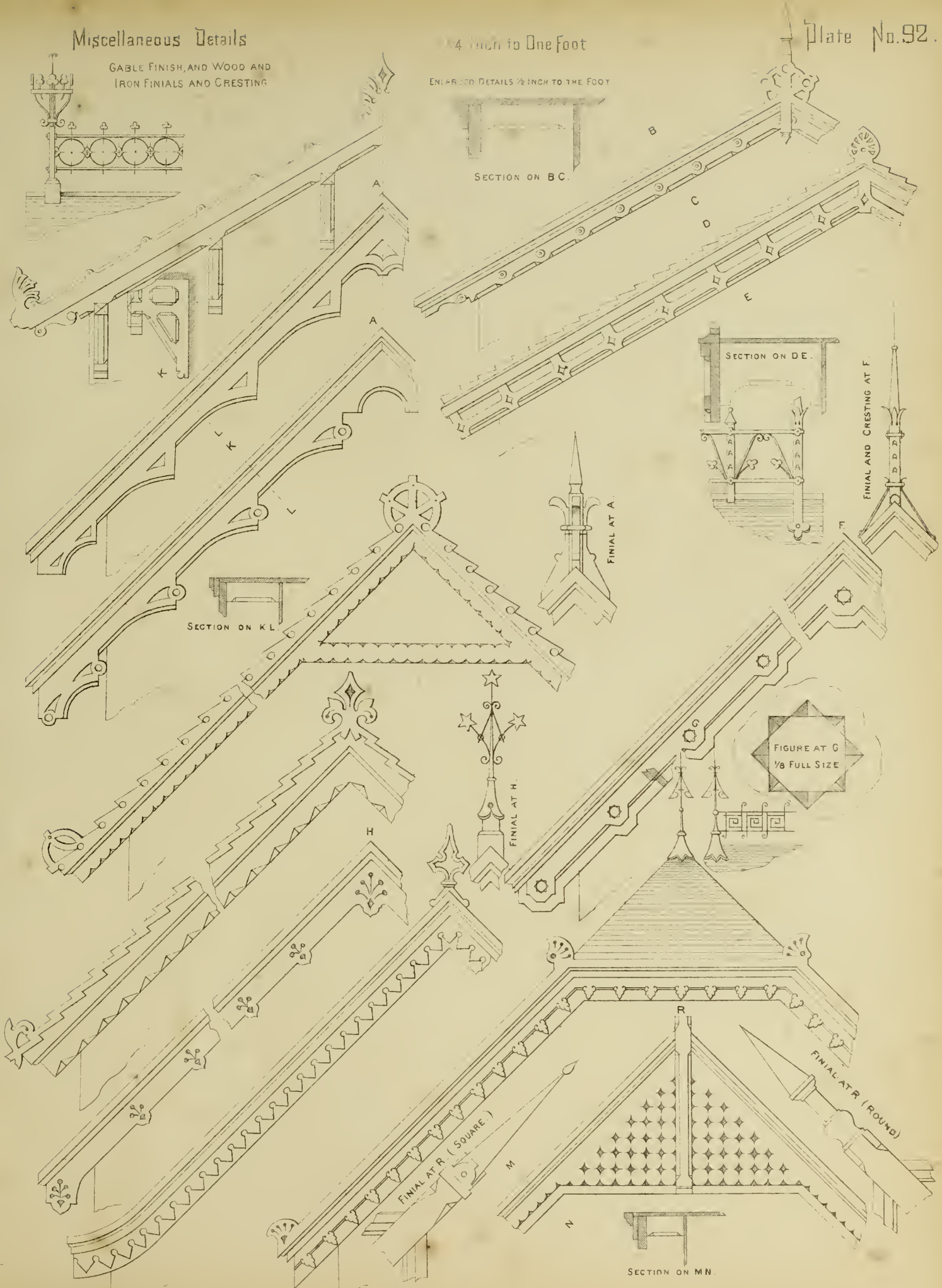
Miscellaneous Details

Plate No. 92.

GABLE FINISH, AND WOOD AND IRON FINIALS AND CRESTING

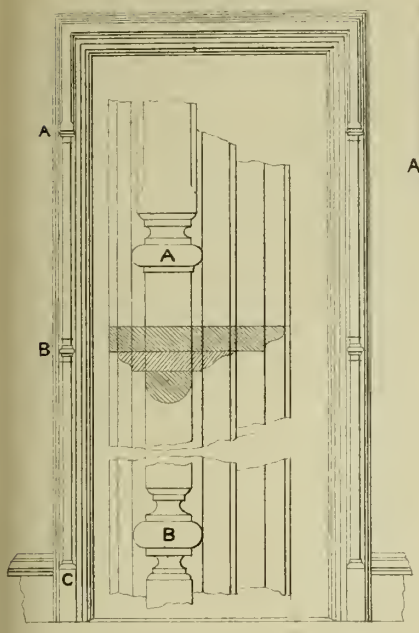
1/4 Inch to One Foot

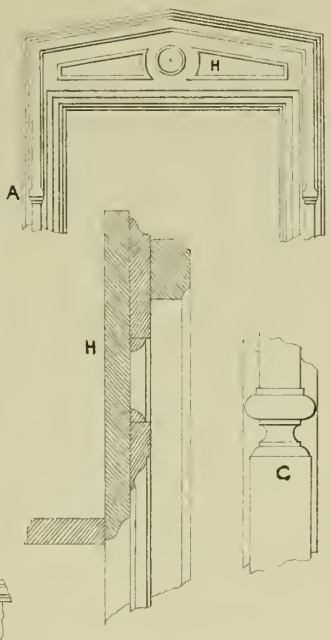
ENLARGED DETAILS 1/2 INCH TO THE FOOT

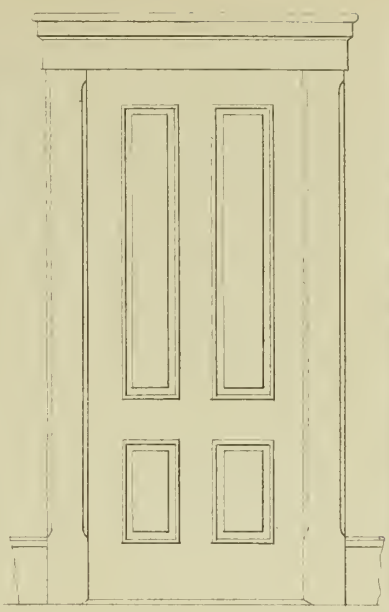


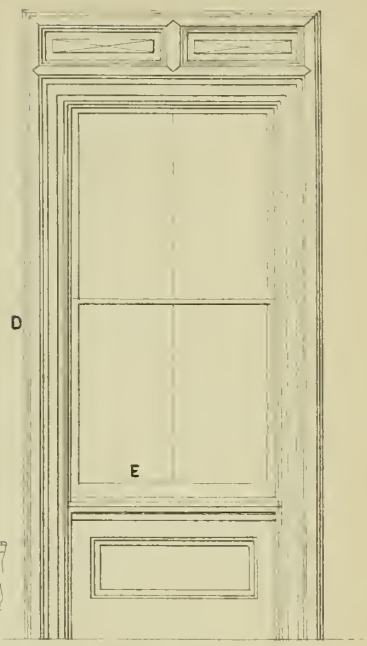
Canopies, Hoods, and Cupolas

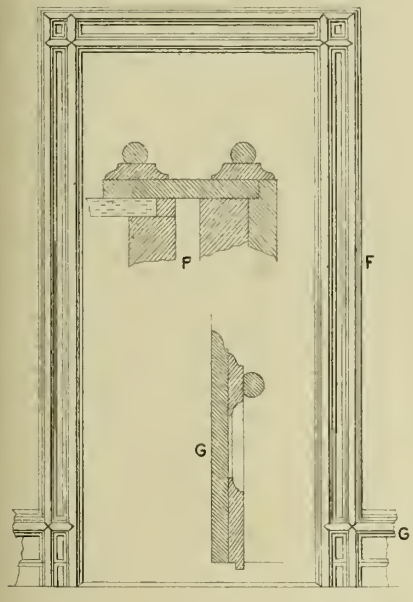
Scale of 1. 2. 3 & 4 1/4 inch to the foot Scale of 5 1/8 inch to the foot. Scale of remaining designs 3/8 inch to the foot

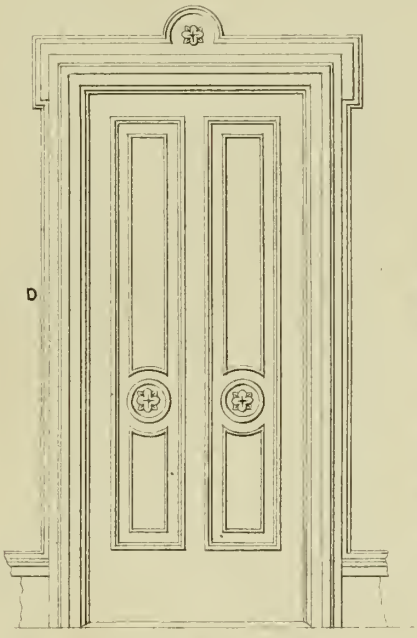


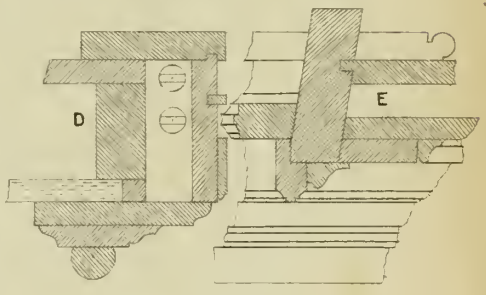


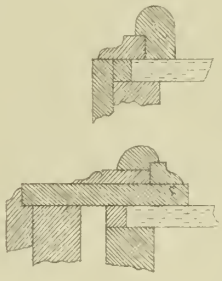


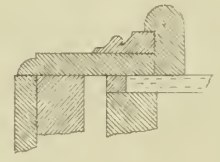


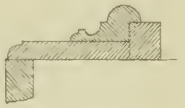


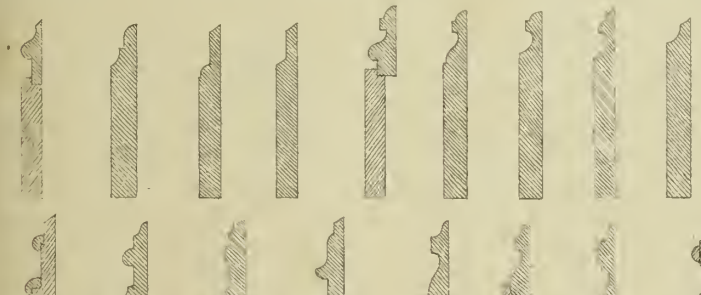


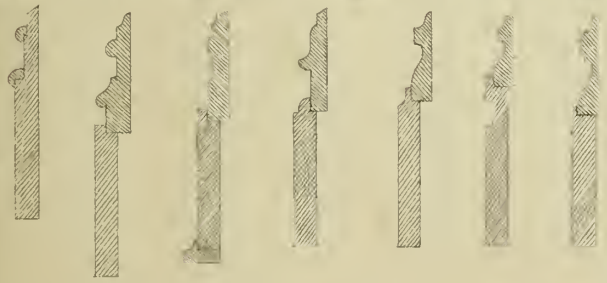


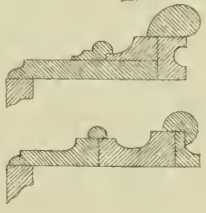


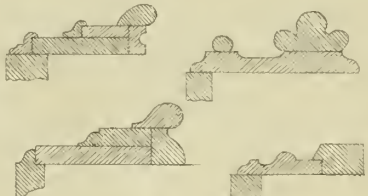


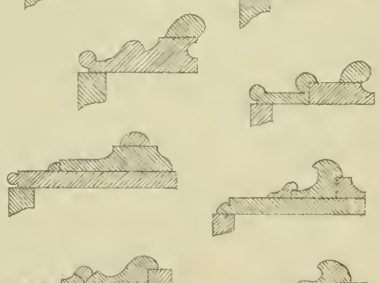


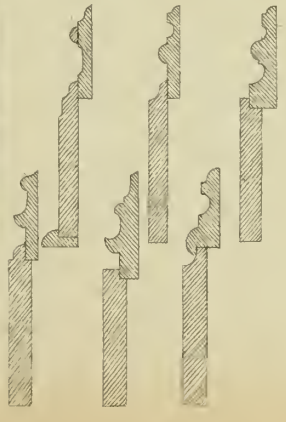


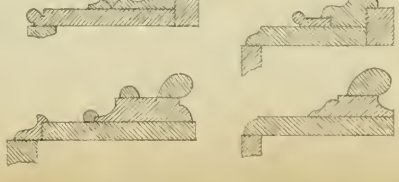




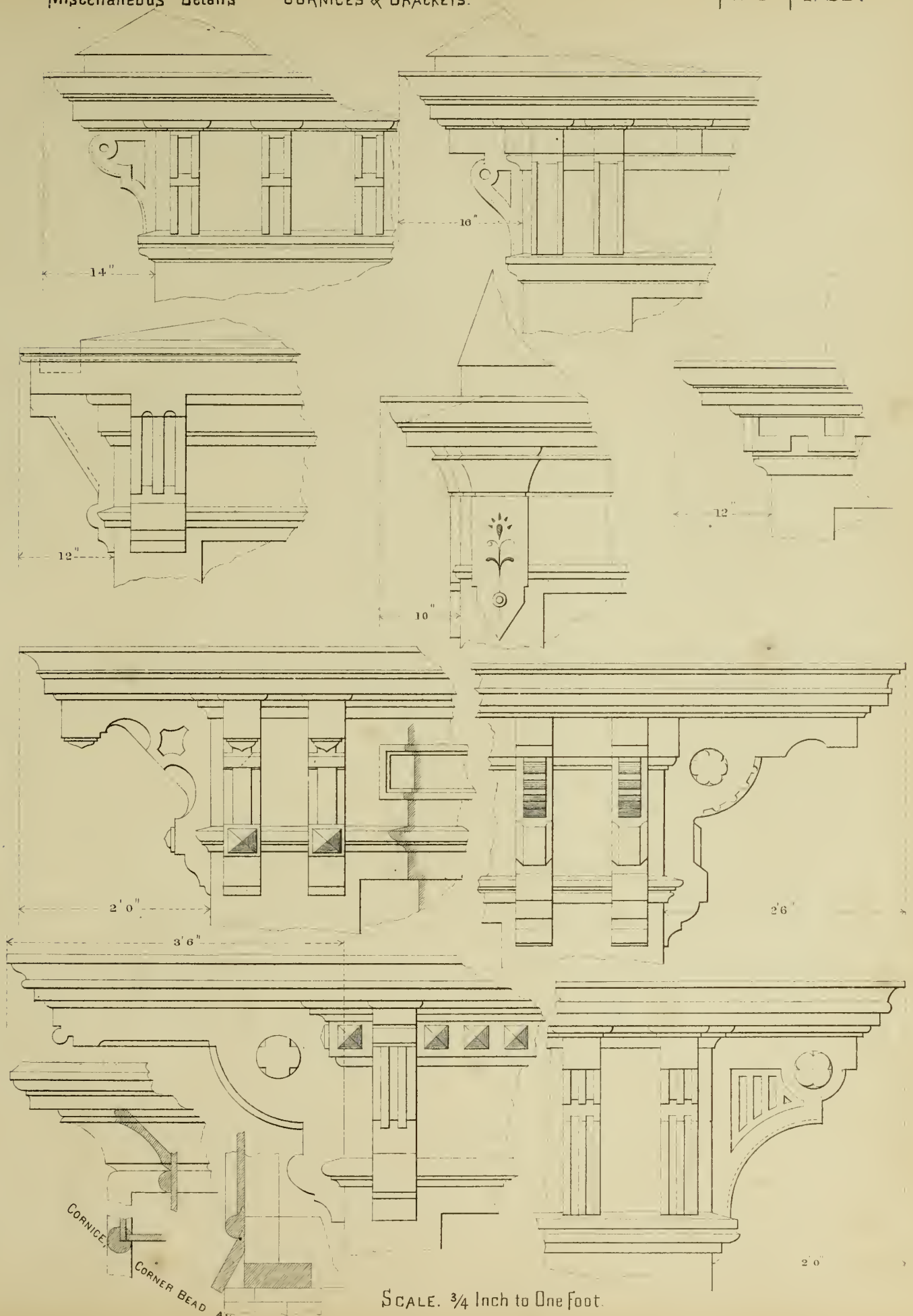




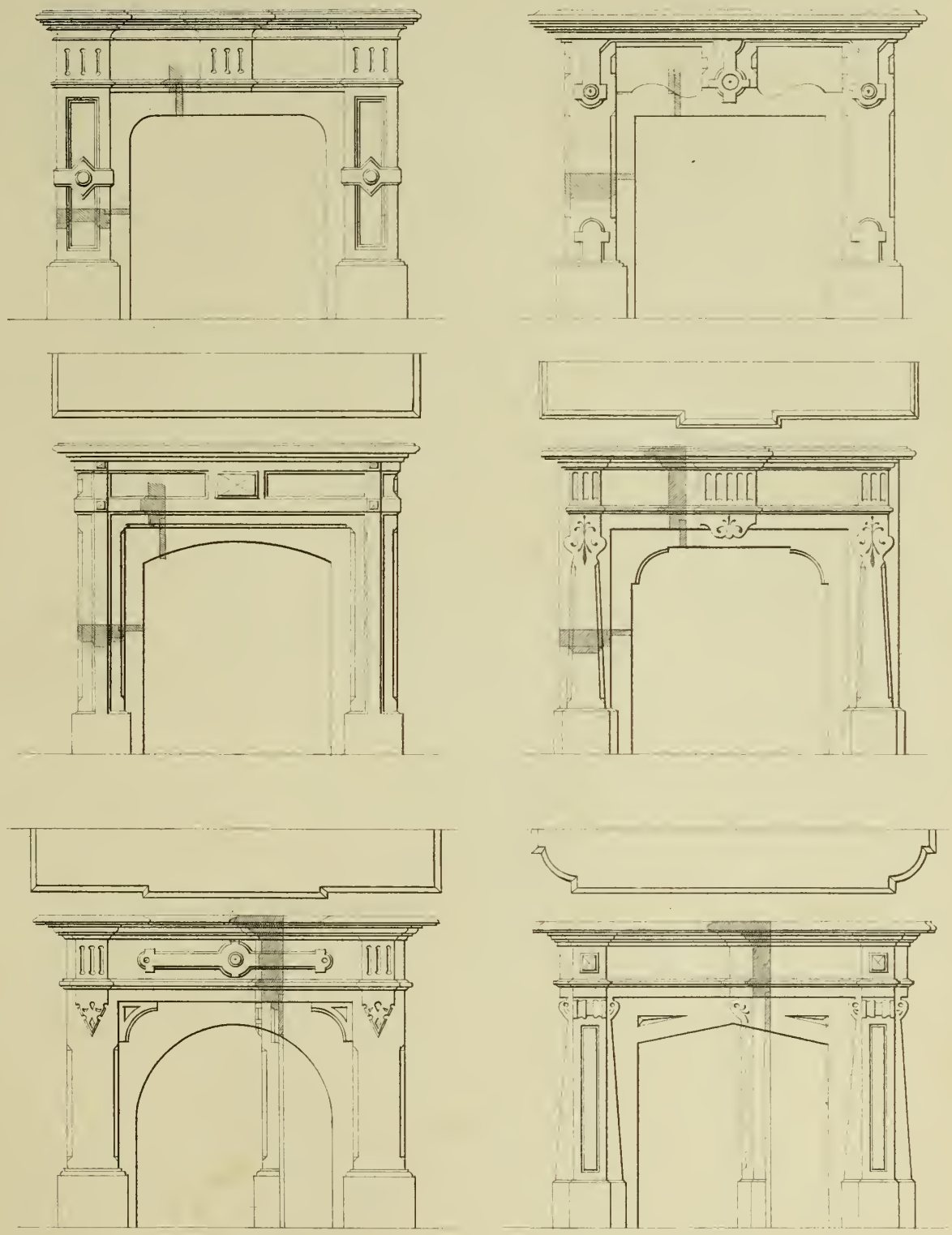




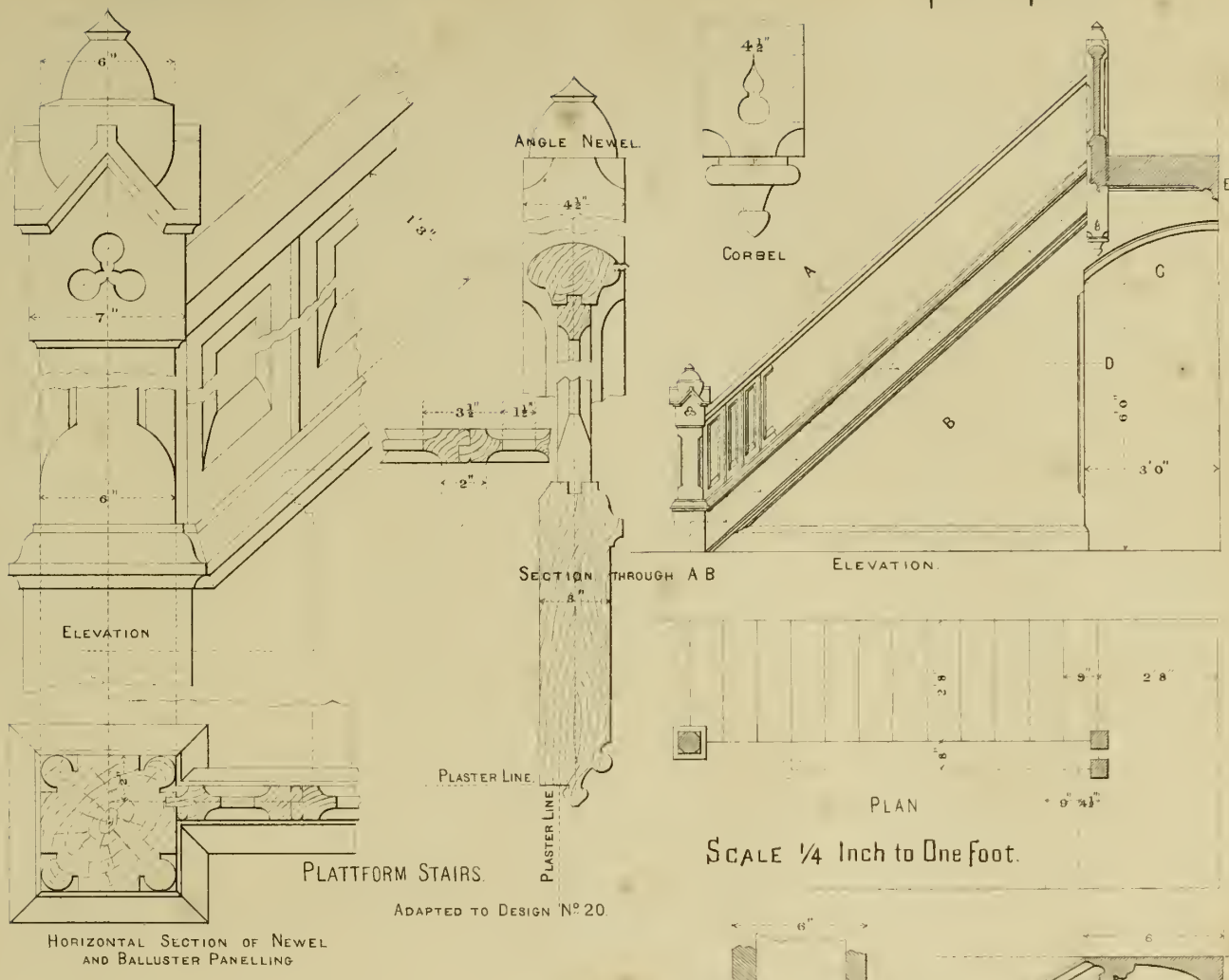
Letters on Enlarged Details refer to the same letters on Elevations
Enlarged Details 1½ Inch to the Foot.
Elevation of Doors &c 3/8 Inch to the Foot.



SCALE. 3/4 Inch to One Foot.



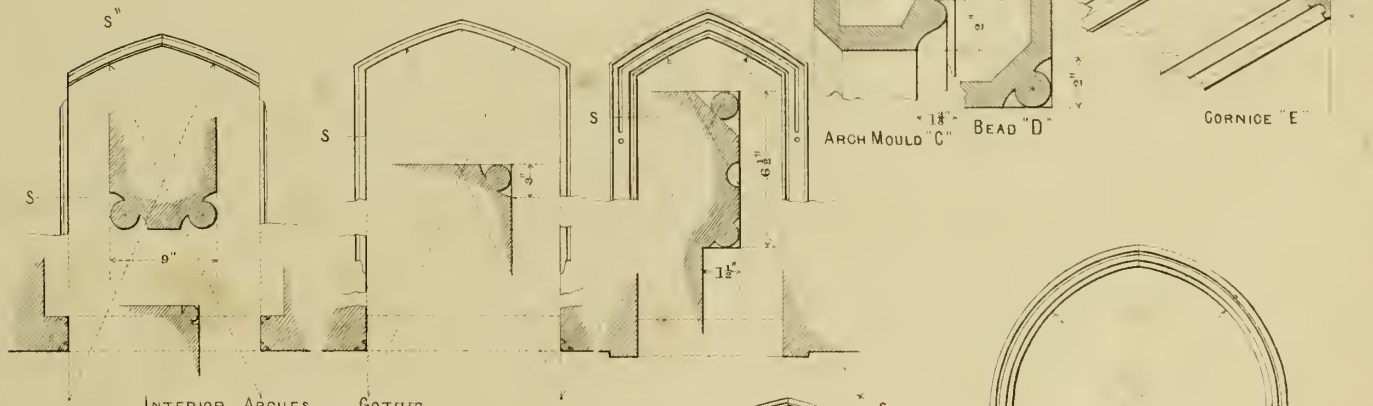
½ Inch to One Foot.



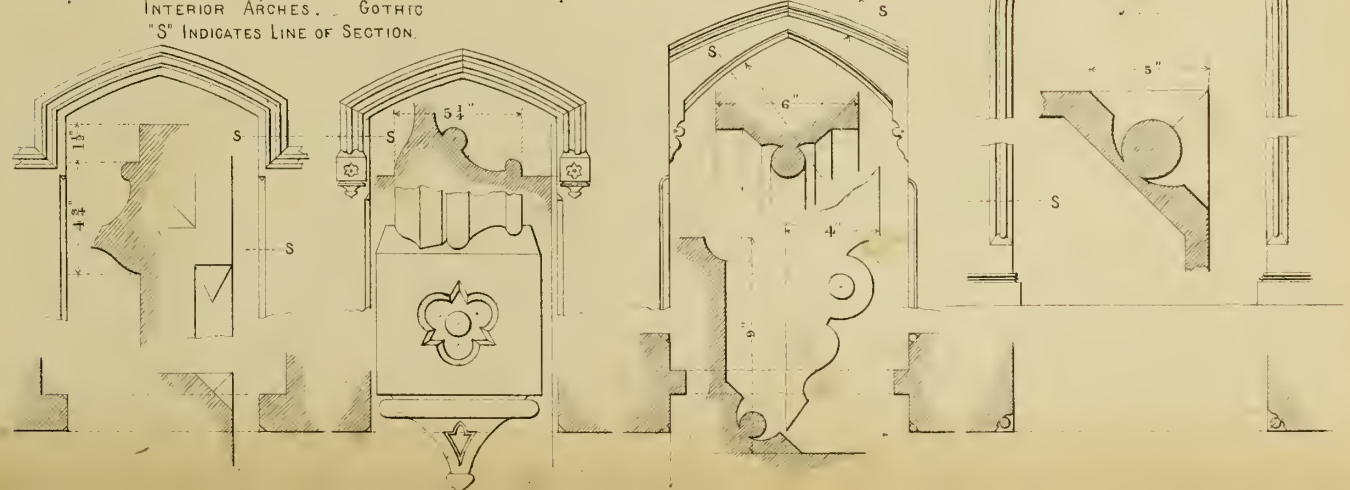
PLATTFORM STAIRS.

ADAPTED TO DESIGN Nº 20.

HORIZONTAL SECTION OF NEWEL AND BALLUSTER PANELLING



INTERIOR ARCHES. GOTHIC
"S" INDICATES LINE OF SECTION.

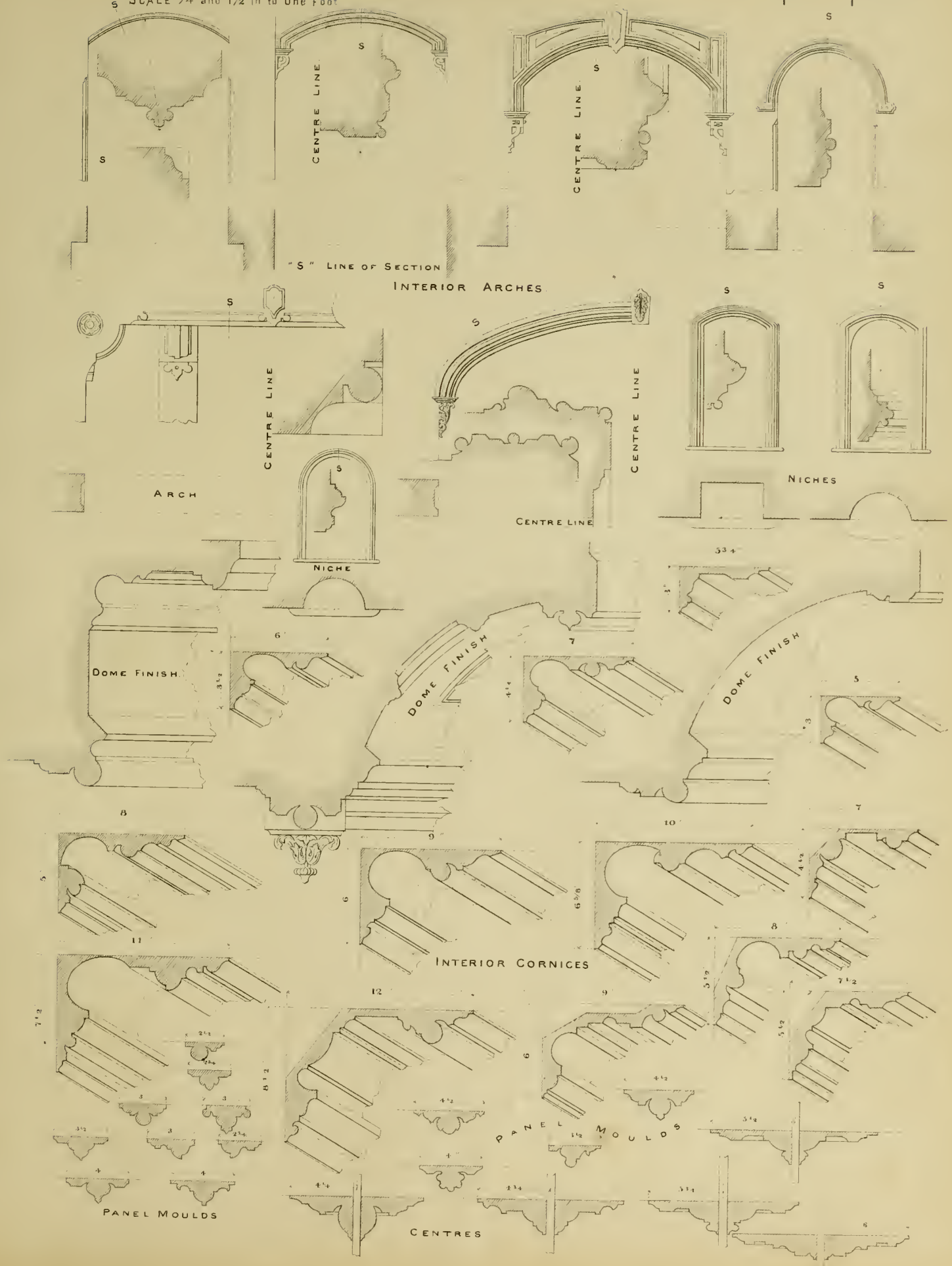


Miscellaneous Details

SCALE ¼ and 1½ In to One Foot

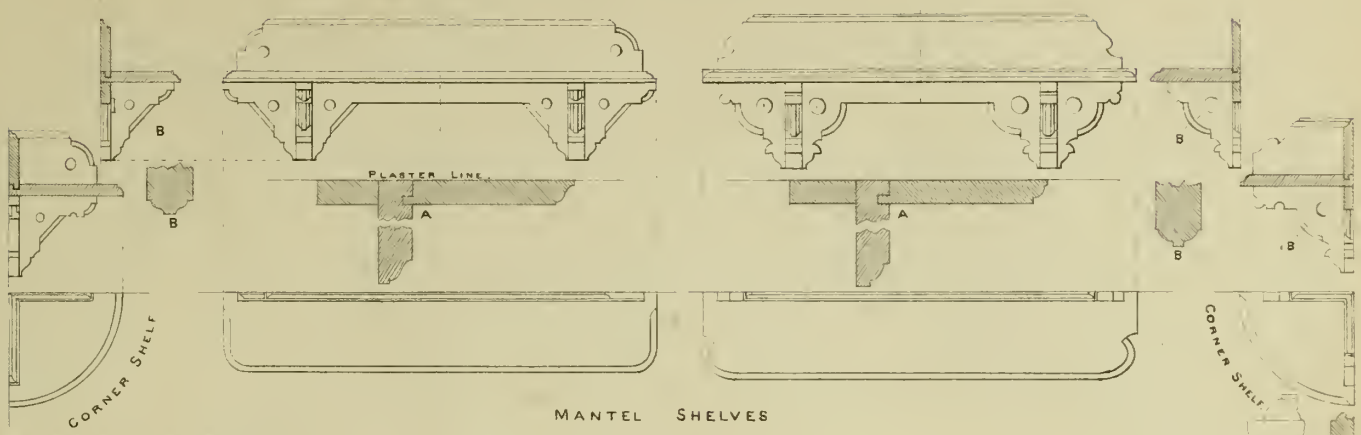
PLASTER FINISH

Plate No 98.

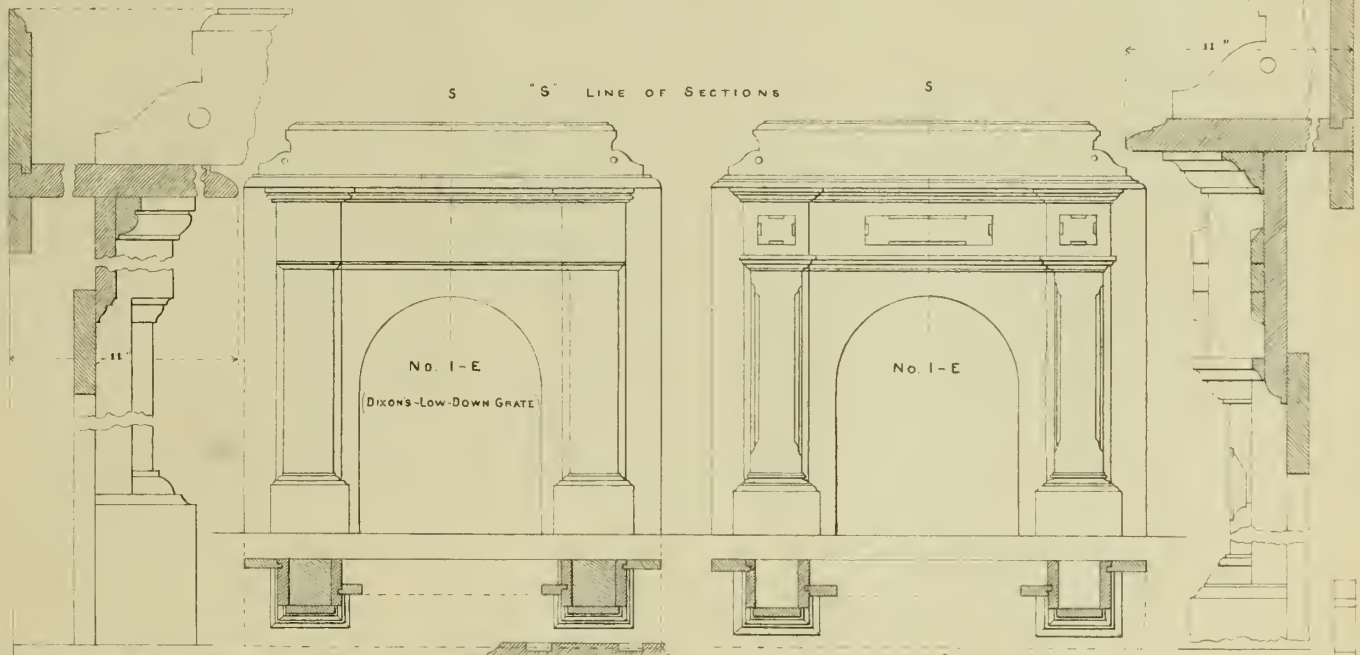


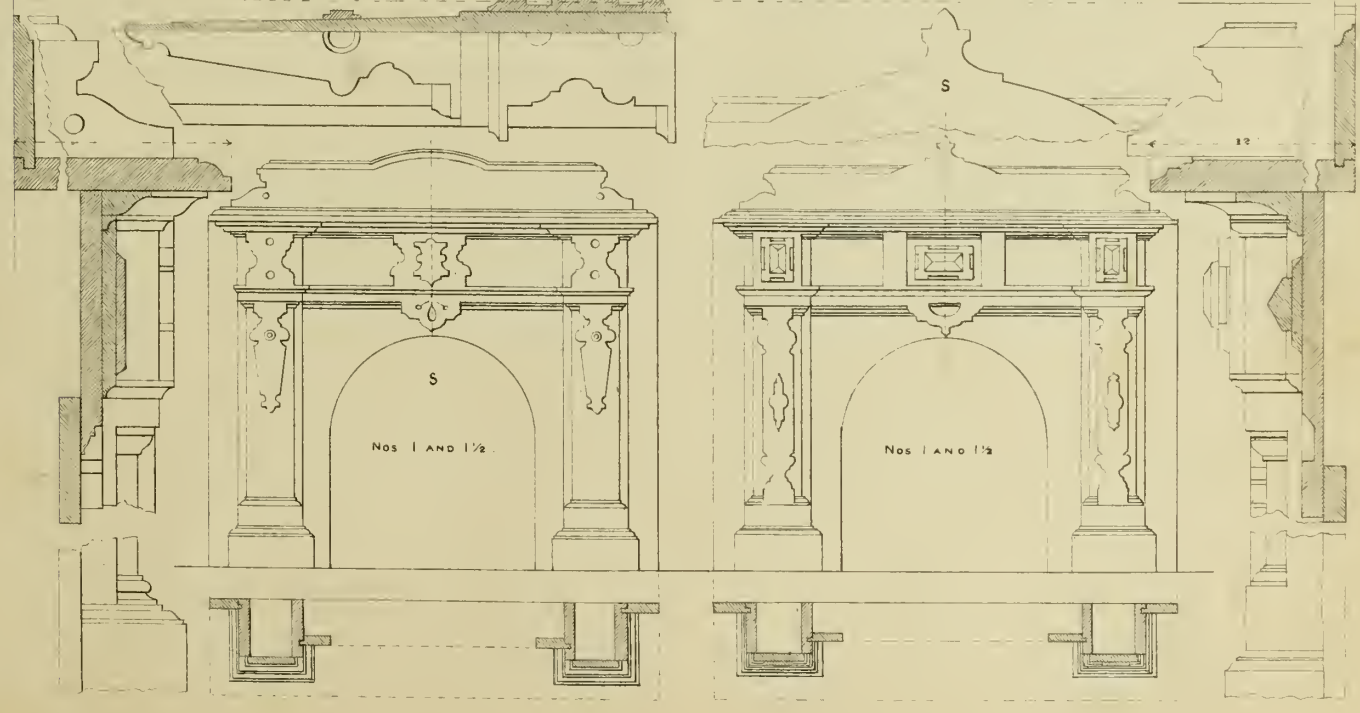
WOOD MANTELS

A SCALE ½ and 1½ Inchs to One Foot A



MANTEL SHELVES

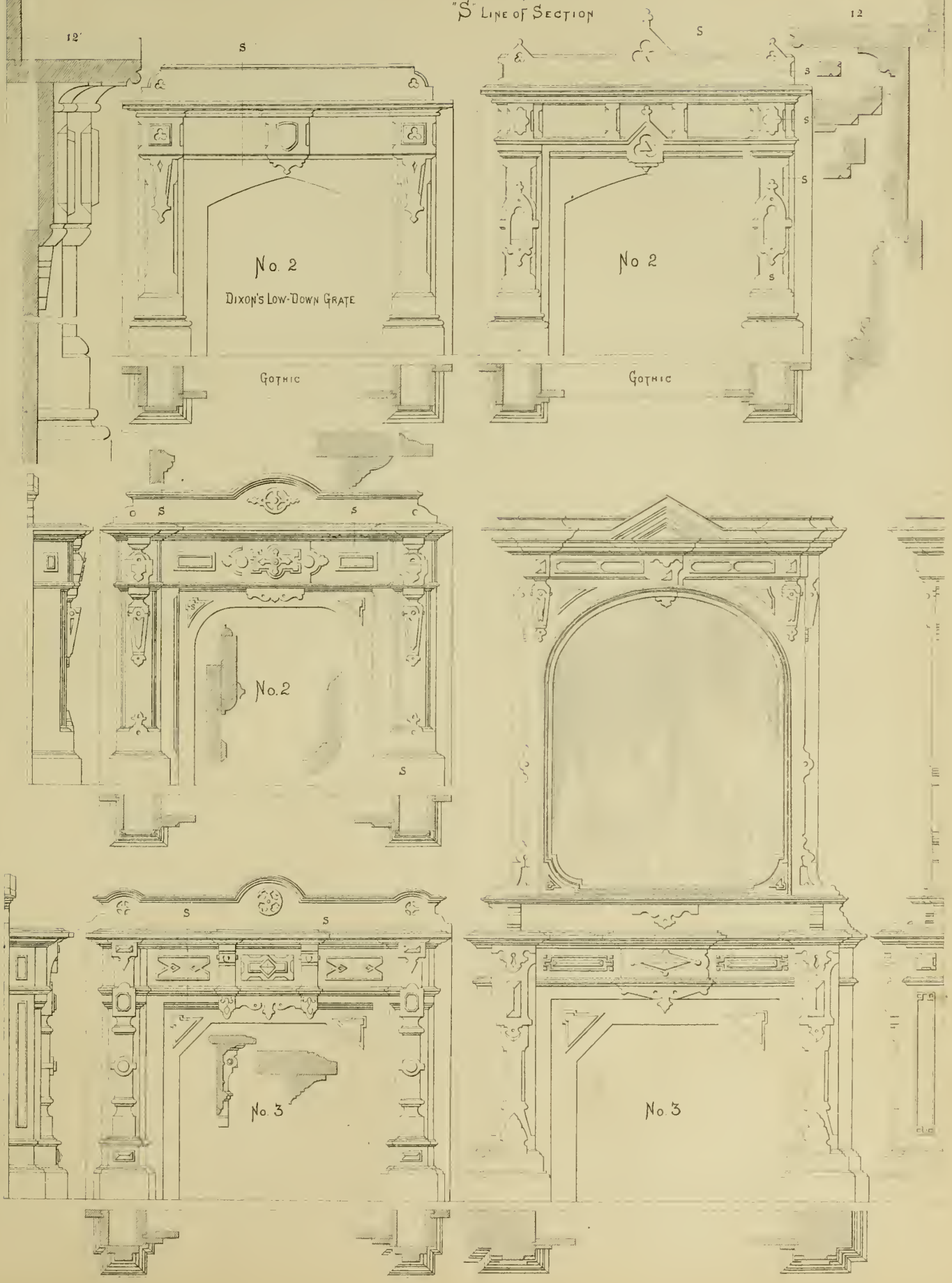




SCALE ½ and 1½ Ins. to One Foot.

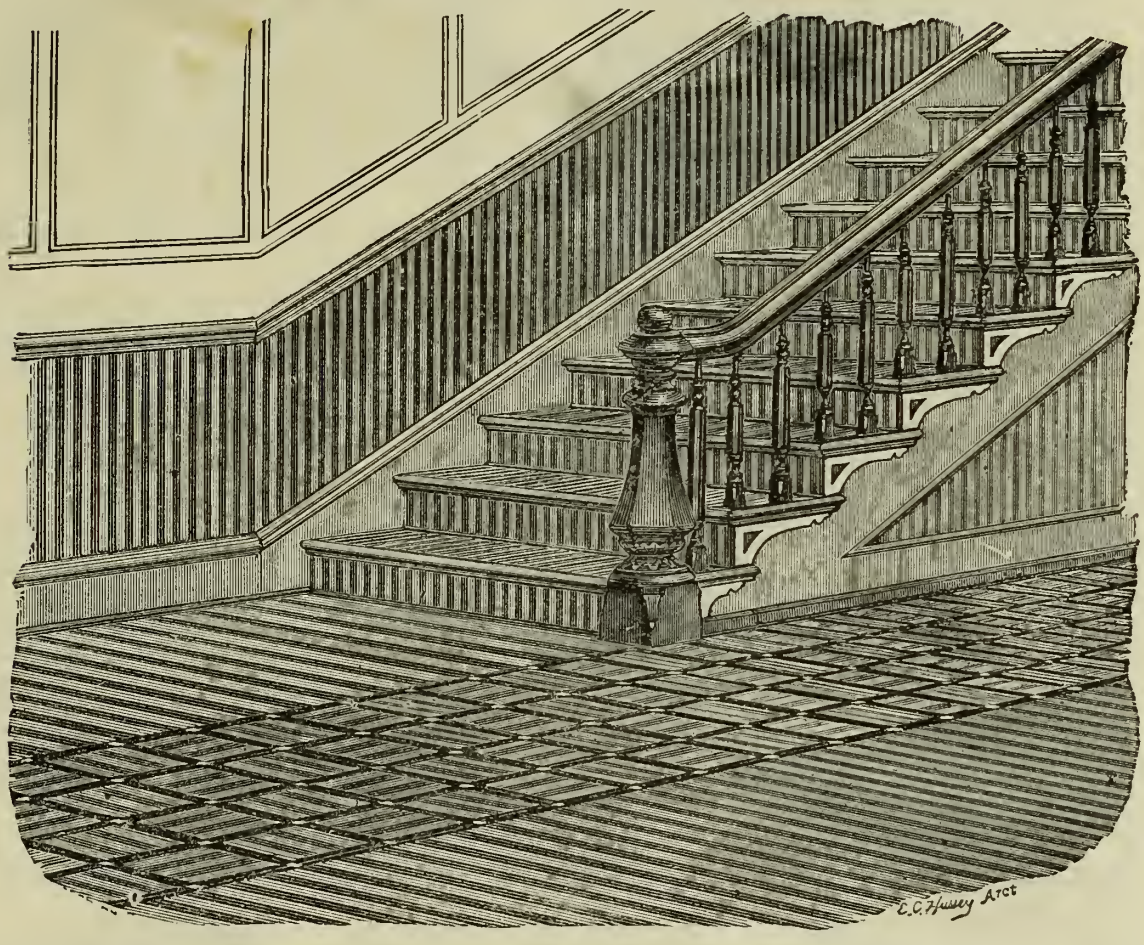
WOOD MANTELS

"S" LINE OF SECTION



Portable Wainscoting and Wood Floor Covering,

PATENTED NOVEMBER 10, 1868.



This new article of manufacture is now commanding the attention of Architects, Builders and Housekeepers, and is gradually superceding the use of tongued and grooved hard woods for wainscoting, the cost of which is less than one-half, and possesses this advantage—that there is no perceptible shrinkage. It consists simply of narrow strips of hard woods, of any kind, nearly one-fourth of an inch in thickness, firmly glued on to twilled canton flannel. These strips are all kiln-dried after they are cut up. It is unrolled like a carpet, laid on the wall, and secured by a rabbeted cap at the top and a moulding below. As a carpeting, the cost is about the same as a good oil cloth, but will last *four times* as long. Can be laid in any pattern. Dr. DIXON, one of our most eminent Surgeons, and proprietor of the "*Scalpel*," strongly commends its use, on hygienic principles.

Among those who have used it, and can fully endorse our claims to its merits, we may mention the names of GEORGE E. WOODWARD, Esq., publisher of this and other works on Architecture; GRIFFITH THOMAS, Esq., Architect of the Park Bank, Life Buildings, &c., and many others. We ***guarantee all work put up by us,*** and shall endeavor to place it in the hands of agents at remote points from here, who will carry out our instructions, so that the work may be fully equal to that under our immediate supervision.

☞ ***SEND FOR CIRCULAR AND PRICE LIST.***

HUSSEY & WHITTEMORE, Manufacturers and Sole Proprietors,

35 & 37 PARK PLACE.

JOHN Q. A. BUTLER, Stove, Range and Furnace Warehouse,

233 Water Street, between Beekman and Peck Slips.

Fig. 1.

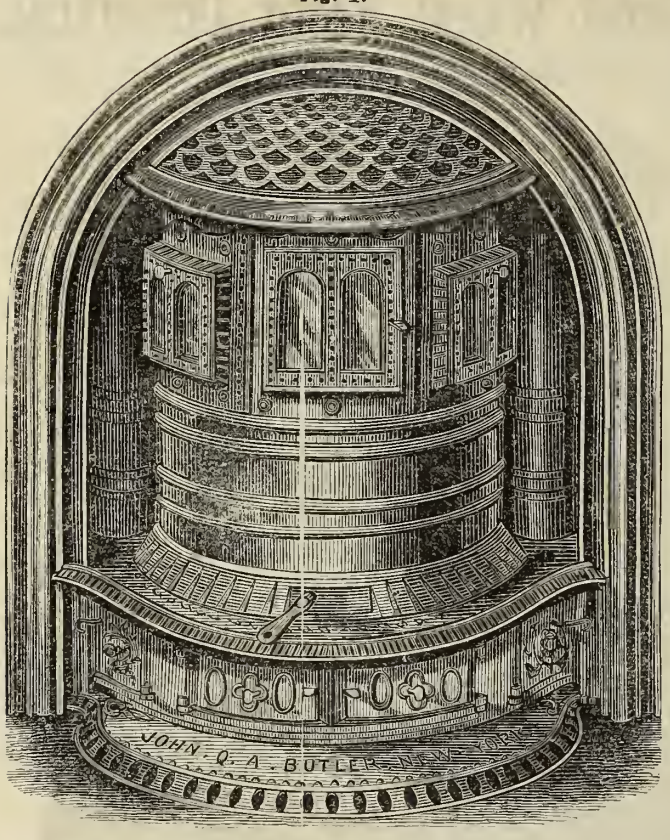


Fig. 1—BUTLER'S FIRE-PLACE HEATER.

The latest and best, containing the following advantages over others:

First.—Sitting further out in the room it will give more heat than others in the room in which it is placed.

Second.—Having greater amount of heating surface and largely increased circulation, it will give more heat up stairs.

Third.—It has the most approved dumping and shaking grate which can be operated at all times, without opening of doors, thereby securing immunity from dust and ashes.

Fourth.—The open-work top can be removed giving conveniences for boiling water, heating sad-irons and even for baking if desired, with the aid of a tin cover.

Fifth.—The whole combined forms the most complete and efficient fire-place heater now in the market.

Fig. 2—The Warren Double Elevated Oven Range.

Especial attention is invited to the Improvements Incorporated in this range.

It is substantially made, of the best material, compact in form, beautiful in design and in all respects First-Class.

It has an **Enlarged Boiling Top**, giving access to cooking utensils under the Oven, still retaining the flue (conveying heat to the Ovens), in close proximity to the fire, thereby securing Convenience and Economy.

Having but **one Damper** to control the draft and regulate the temperature of the Ovens, using the flue around the Ovens for kindling, not only **Simplifies** but secures great Economy of Fuel.

The peculiar construction of the boiling top gives a **Large Square Opening directly over the Fire for Broiling and Toasting**, which method will convince good housekeepers that this improvement is an important one, other ranges being deficient in this respect. The construction of the grate admits of the coal and ashes being removed from the fire-box without the escape of **Dust into the Room.** Being made into two parts, the expense of displacing the masonry when a new one is required is avoided.

The spacious hot closet is made entirely of cast iron, located directly over the ovens, and easy of access. The shelf projecting over the steam flues is also of cast iron, combining **Strength and Durability**, besides affording an admirable place for setting dishes, etc.

Ventilation of Ovens is one of the new and important arrangements, also the method of removing steam and effluvia from cooking is complete.

Fig. 2.

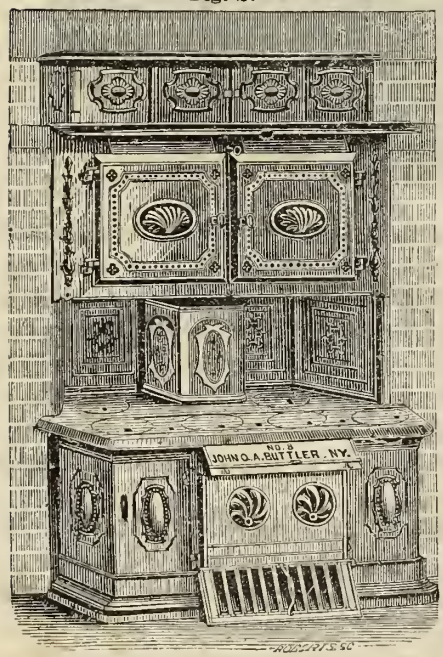
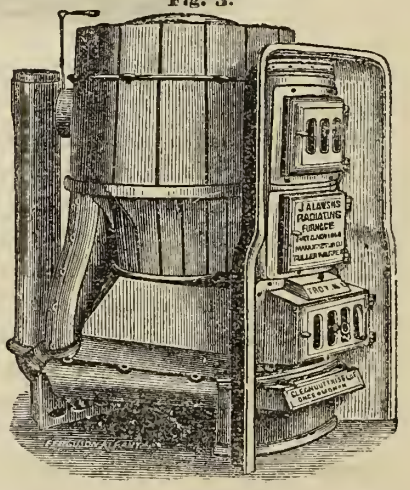


Fig. 3—THE LAWSON FURNACE.

The construction of the Lawson Furnace is such as—

First.—To give a large amount of Radiating Surface, brought in close proximity to the fire-chamber, by means of a Dome, containing a series of air-tubes passing through it from the lower to the upper section of the hot-air chamber; also a double radiating Flue suspended under the ash-pit, through which the heat, after charging the dome and air-tubes, is carried before reaching the smoke-pipe, and with this large amount of extra radiating surface, in connection with a lined Fire-Pot so located as to radiate directly into the air-chamber, it must be evident that a very great advantage is gained over other Furnaces, in point of radiating capacity.

Fig. 3.



Second.—By means of the suspended double flue under the ash-box, and the air-tubes passing through under the dome, a very strong attraction is created to produce a liberal supply of pure cold air through the air-box, and rapidly pass it up through the hot-air chamber, thereby always insuring a large supply of well-warmed but not over-heated air in the rooms.

Third.—As we bring the cold air in directly under the suspended double flue, so that it comes at once in contact with radiating surface, and then passes up and around the fire-pot and dome and through the radiating tubes, it must be evident that exposing so much radiating surface gives great economy of fuel, requiring a much less consumption of fuel to furnish a given amount of heat, than other furnaces require, having small radiating capacity, and introducing the cold air indirectly to the radiating surface, so that as regards economy this Furnace stands unrivaled.

Fourth.—The Combustion is controlled on the air-tight principle, which, in connection with the manner in which the Furnace is constructed, and the Flues arranged, renders the escape of Gas into the rooms impossible.

Fifth.—The Lawson Furnace is not made to compete with cheap, poorly made articles, but in every respect to be a first-class Furnace, no expense being spared, either in weight or finish of castings, or mechanical skill in fitting, the doors being all ground and fitted air-tight, and joints perfectly secured.

Sixth.—In point of convenience, it is all that could be desired, having a Grate which shakes and dumps with perfect ease, the doors for feeding, fire-pot and water evaporator, as well as for cleaning out ash-pit, are all of liberal proportions, and the only damper connected with the Furnace is operated from the front.

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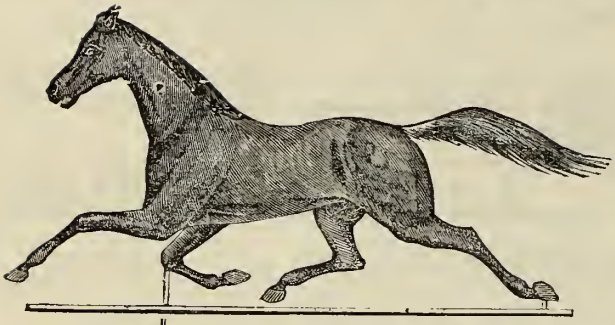

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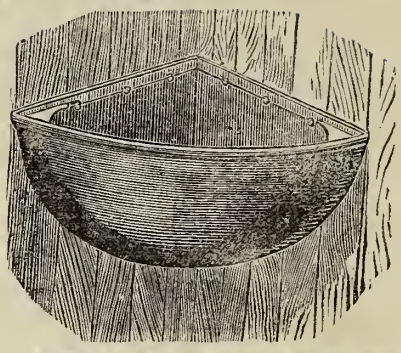

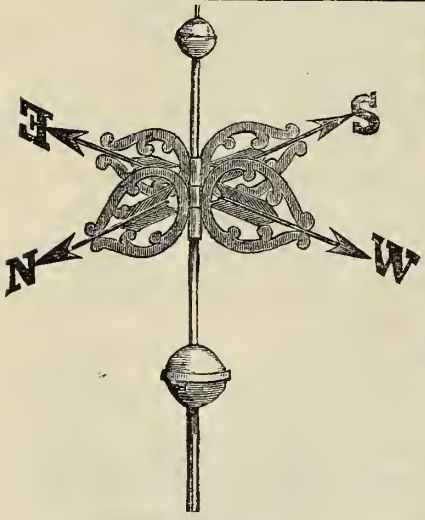

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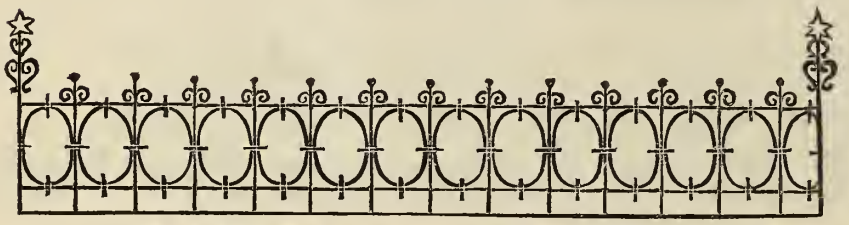

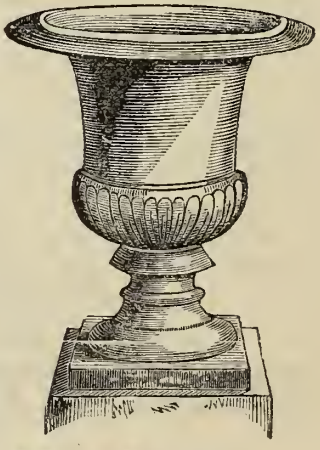

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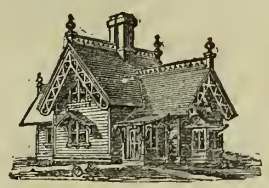

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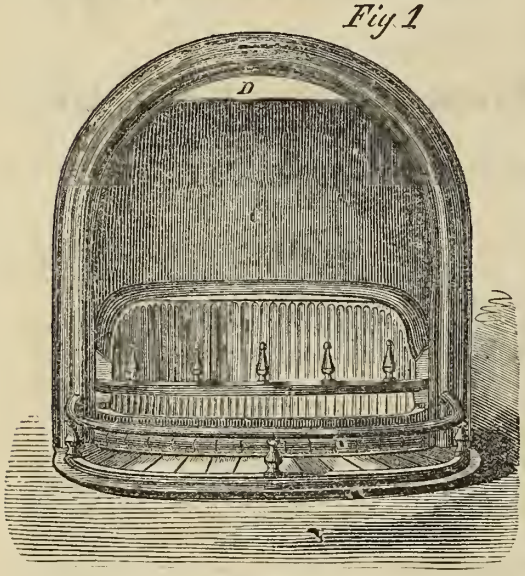

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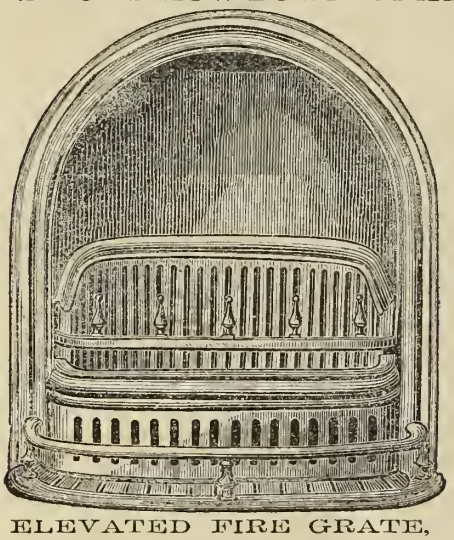

ELEVATED FIRE GRATE,
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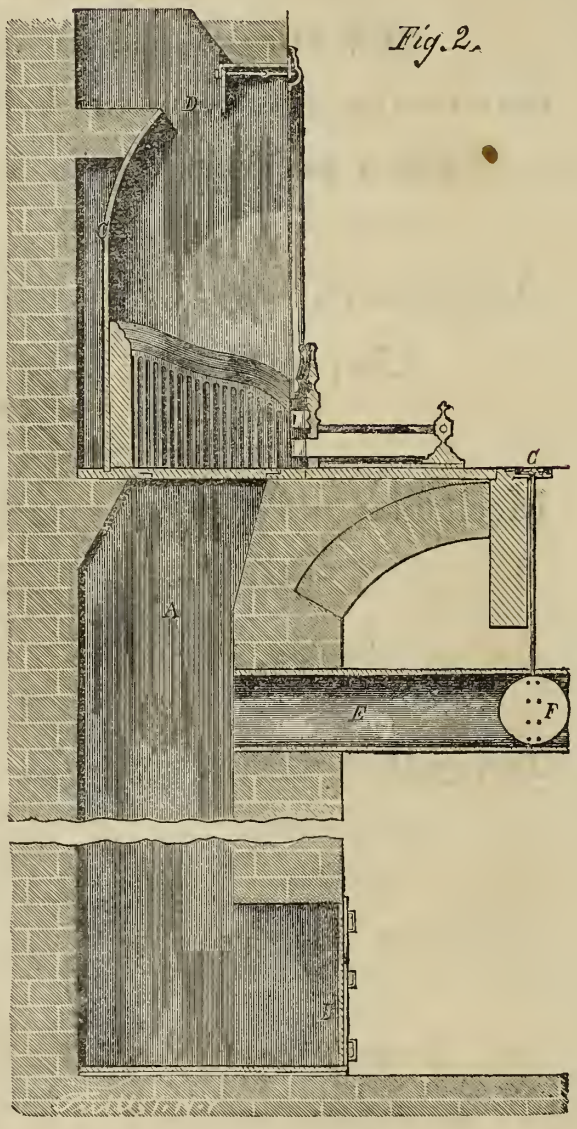
The engravings present two views of a grate which has been in use for many years in Philadelphia, and of which a number are now used in this city. Its main peculiarities are in its form, giving out a much larger proportion of the heat of combustion than others, in the fact that it does not exhaust the room of its oxygen, and that the fire is built on a level with the floor, thus warming that portion of the apartment which is always the coolest. Those who have these grates in use speak in the most unqualified terms of praise as to their action and benefits.

The fire-grate is on a level with the floor, forming a portion of the hearth. This is merely a grate, the ashes falling through the interstices into an ash-pit, A, Fig. 2, of brick, capacious enough to hold the residuum of a season's burning, and which is finally removed through the door, B. The back, C, of the fire-place, instead of being rectangular, as is ordinarily the case, is concave, so that the rays of heat are diverged radially to every part of the room to be heated. The heat rays are thrown downward as much as they are in horizontal *radii*, as the back is of a niche form, as seen in Fig. 2, curving over to the front. This back plate is usually high, giving a great distance between the fire and the point of escape for the smoke at the throat D, of the chimney. The ash-pit for the first floor can be built of such an extent, reaching to the cellar, as to receive the products of a winter's combustion. On higher floors a more elevated fire-box is used where capacious ash-pits are not convenient.

Fig. 2.



Section showing manner of setting the Grate.

The air for the purposes of combustion is not drawn from the room where the fire is situated, but comes either from the cellar, or from outside the house through the Flue, E, the admission of air being regulated by means of a damper, F, governed by a convenient handle, G, seated in the floor. By this simple arrangement the necessity of a portable blower, which prevents for the time of its use any appreciable heat from coming into the room, is obviated, while the deterioration of the air in the room by the consumption of its oxygen is prevented, thus preserving a good quality for breathing purposes, and also securing a perfect circulation at all times. The throat of the chimney for the escape of gases is near the front of the fire-place, so that the products of combustion, traversing the curved back, must yield a large percentage of their heat before escaping.

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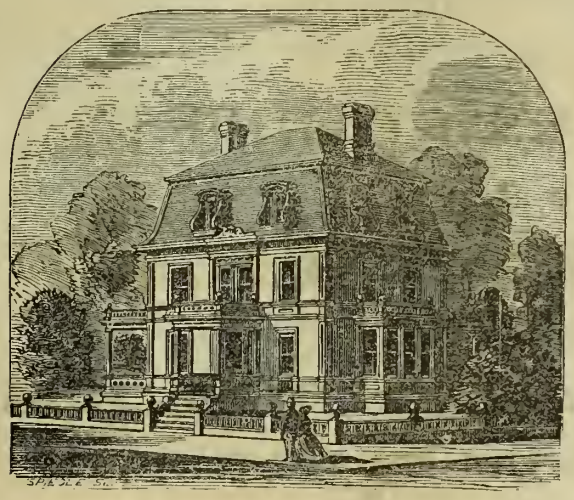

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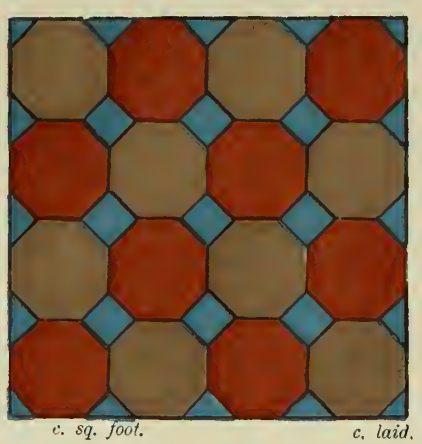

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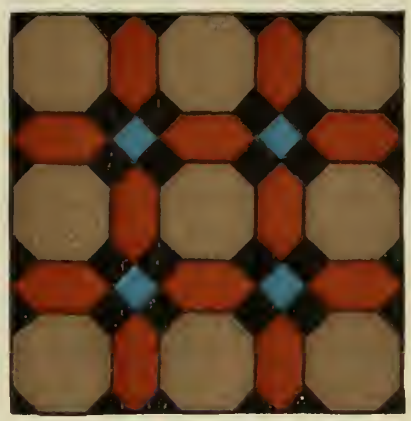

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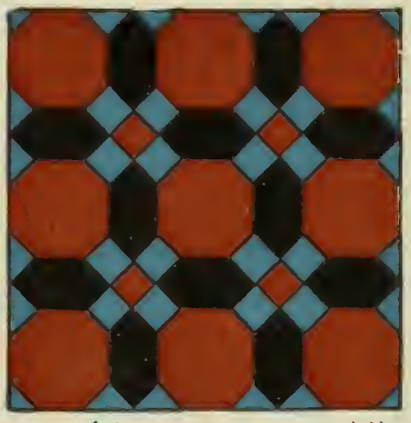

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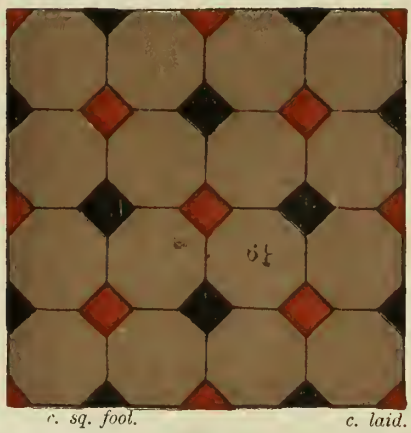

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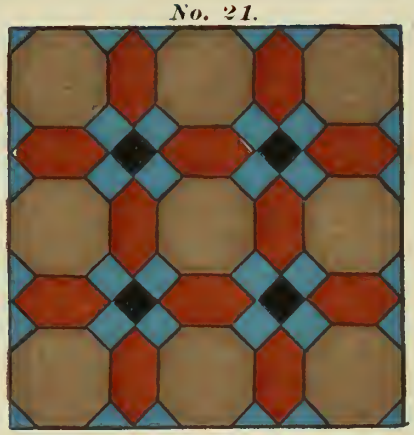

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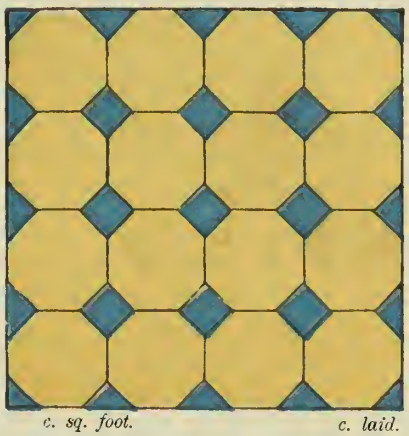

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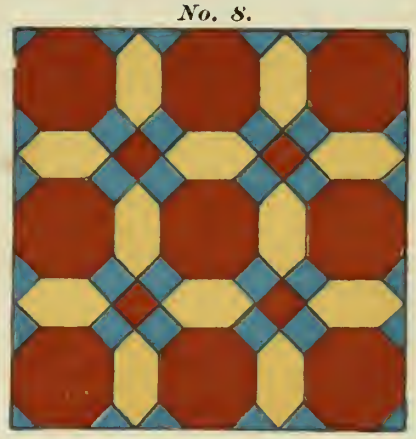

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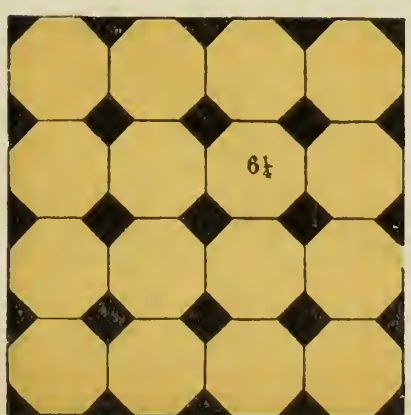

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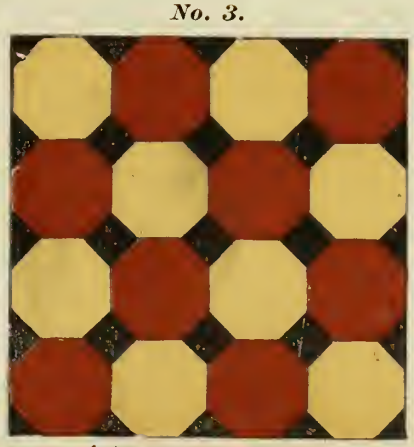

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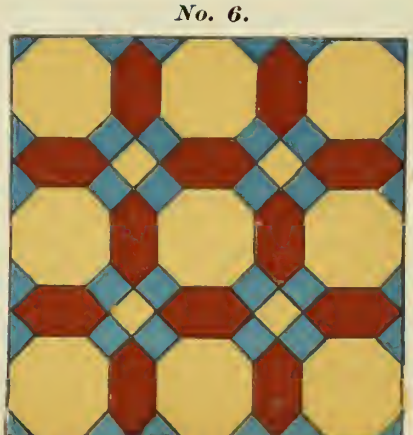

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